Holden

ASTRA

OWNER'S HANDBOOK

LD SERIES

Vehicle Identification Certificate

Owner's Name .....

Address .....

Town .....

State ..... Postcode .....

Model Name .....

Reg. No. ..... Eng. No.....

Vehicle Identification No. (VIN) .....

Date of Purchase..... Odometer Reading .....

Selling
Dealer's
Stamp &
Signature .....

CHANGE OF ADDRESS/OWNERSHIP

Holden's requests that owners who change their address (or name) or subsequent owners who purchase this vehicle, complete and return by mail one of the forms on pages 5-15 or 5-17.

This notification is important even after the expiration of the original vehicle warranty in order that Holden's will be able to contact you should the need arise.

Part No. 99902 J7519
December 1988 (PRINT 4)

INTRODUCTION

We thank you for choosing Holden and want to assure you of our continuing interest in your motoring pleasure and satisfaction.

USING THIS MANUAL

This manual is divided into six main sections.

The six coloured segments on this page correspond to six coloured tabs marking the beginning of each section.

The front page of each section contains an index of the section, and a complete alphabetical index of contents is located at the back of the manual together with a quick reference section containing service station information.

INSTRUMENTS and CONTROLS 1
Gauges and warning lights, switches, park brake, steering wheel and mirrors, keys, locks and windows, seats and seat belts, ventilation and heating, audio and clock

STARTING and DRIVING 2
Running in, starting, operating, towing a trailer, fuel economy.

IN CASE OF EMERGENCY 3
Freeing stuck vehicle, Emergency starting, Towing, Changing a wheel, Overheating.

MAINTENANCE and SERVICE 4
Regular checks, simple maintenance and repair, care of interior and exterior appearance. Recommended maintenance schedule and coupons.

WARRANTY and CUSTOMER ASSISTANCE 5
Warranty information, Change of address, Customer assistance, Vehicle identification, Authorised Holden Dealers.

TECHNICAL INFORMATION and SPECIFICATIONS 6
Vehicle specifications, weights, dimensions. Lubricants.

This handbook applies to all LD Series models and therefore you may find reference to some equipment not installed in your vehicle.

All information, illustrations and specifications in this handbook are based on the latest production information available at the time of printing. General Motors-Holden's Automotive Limited reserves the right to make changes at any time without notice and without incurring any obligation.

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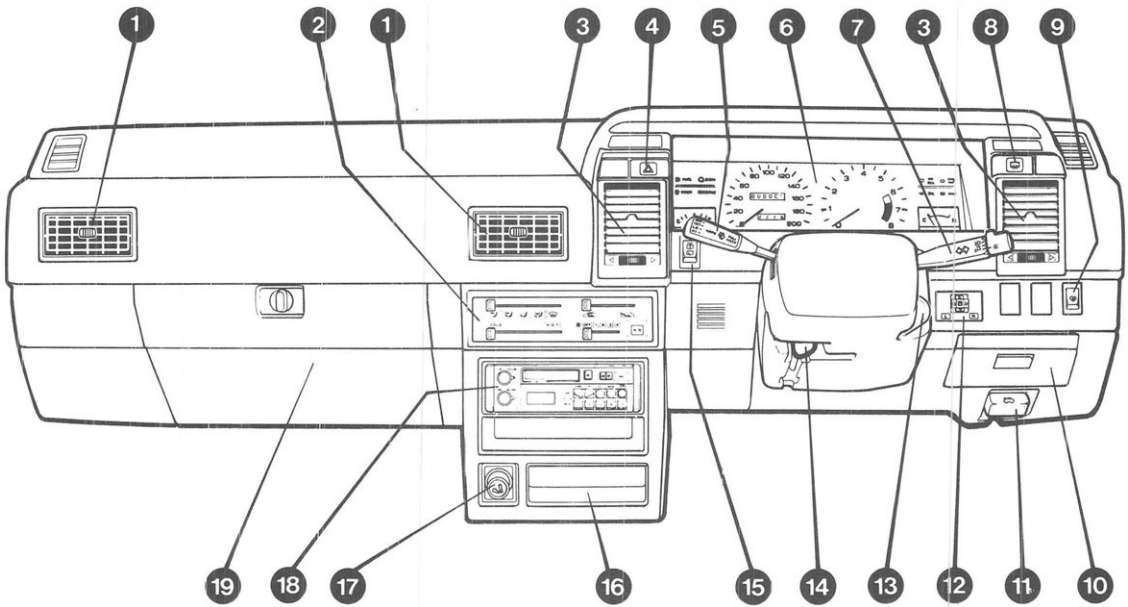
LOCATION OF INSTRUMENT AND CONTROLS



1. Passenger Side Vents
2. Heater Controls
3. Driver Side Vents
4. Hazard Warning Switch
5. Windscreen Wiper/Washer Switch
6. Instrument Cluster
7. Light and Turn Signal Switch
8. Rear Window Demist Switch
9. Instrument Light Dimmer Switch
10. Fuse Box
11. Bonnet Release
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14. Steering Column Tilt Adjuster
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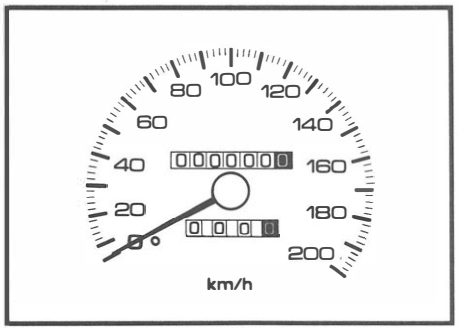
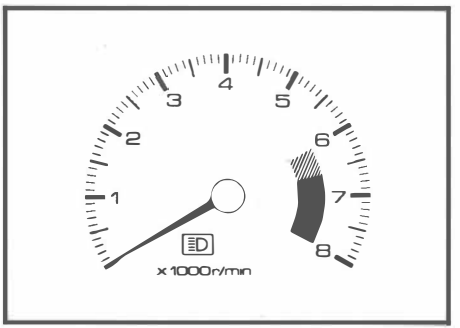
16. Ash Tray
17. Cigarette Lighter
18. Clock and Radio
19. Glove Box

SPEEDOMETER AND ODOMETER



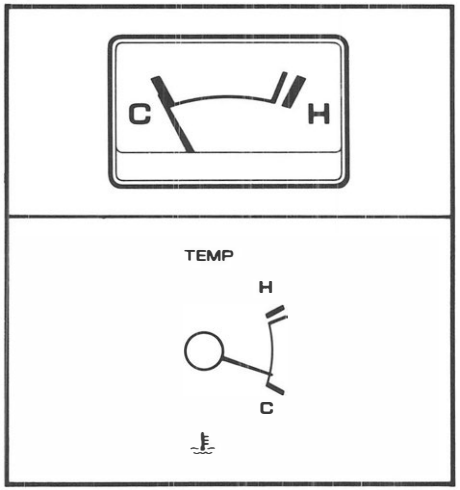
The speedometer is graduated from 0 to 200 in kilometers per hour. Incorporated in the face of the speedometer is an odometer which registers the kilometres travelled and a trip meter which can be set to record the distance travelled each trip. The trip meter can be returned to zero by pushing the reset button on the lower left of the dial. The last digit on the tripmeter is coloured and represents tenths of a kilometre.

TACHOMETER (Where fitted)



The tachometer is electrically operated and indicates the engine speed in revolutions/minute (R.P.M.). The dial gauge is graduated from 0-8 in thousands of revolutions. The dial is divided into three zones, unmarked from 0-6000, marked with red hatching from 6000-6600 and marked in solid red from 6600-8000. For normal driving it is recommended that engine revolutions should stay in the unmarked zone with only short dashes in the hatched zone. Do not drive with the tachometer needle in the solid red zone as serious damage can occur.

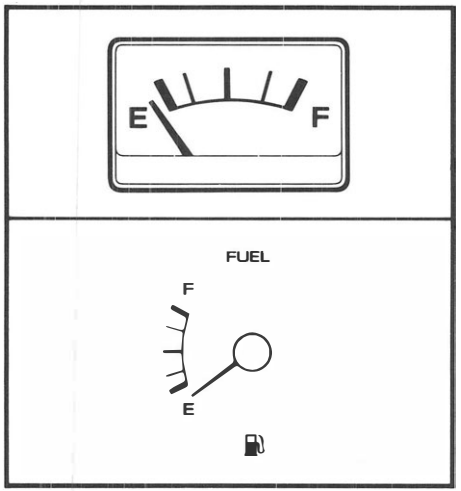
COOLANT TEMPERATURE GAUGE



When the ignition is turned to 'ON' the temperature gauge will indicate the temperature of the engine coolant. Under most driving conditions the gauge needle will remain around midway betwen 'C' and 'H'.

Stop/start driving, driving at sustained high speeds in hot weather, hill climbing or towing a trailer may cause the needle to move towards 'H'. This is not dangerous. However, if the needle should move all the way to 'H' position and remain there for more than a few minutes, pull out of the traffic as soon as it is safe to do so.

FUEL GAUGE



When the ignition is switched on the fuel gauge will indicate the approximate amount of fuel in the tank. The position of the needle may vary slightly when going up or down hill, accelerating or braking.

WARNING LIGHTS

Bulb Check Function
When the ignition is turned on, before the engine is started, the following warning lights will be illuminated.

FUEL, ECM, BRAKE, OIL, AMP

If any light fails to come on, it may indicate a faulty globe or an open circuit in the electrical system. Have the fault investigated and repaired promptly.

Low Fuel Light
This light comes on when the volume of fuel in the tank is less than approximately 10 litres.

Initially the light may flash on and off when going up or down hill, accelerating or braking, but will stay on constantly when the level in the tank has dropped significantly below 10 litres.

ECM Fault Light

The fuel injection and ignition timing of your Astra is controlled by an Electronic Control Module (ECM). The ECM Fault Light is provided to indicate if the ECM detects a fault in one of its operating systems.

When the ignition is turned on, the light will flash once and then remain on until the engine is started, at which time it will go out.

If the light comes on either intermittently or continuously while driving, have the car inspected by a Holden Dealer as soon as possible. Although the car may still be driveable, continued driving with the ECM light on could have detrimental effects on fuel consumption and performance, and may cause damage to the emission control system.

Door Ajar Light

While the ignition key is turned to ON, this light will be displayed if either front door (SL and SLX) or front/rear door (SLE) is not closed securely.

Brake Failure Light

If this light comes on while the engine is running, it will indicate that there may be some fault with the braking system. If this occurs, carefully bring the vehicle to a halt at the side of the road. Do not drive further unless you are satisfied that it is safe to do so, and then only at a reduced speed and with utmost caution.

Have the vehicle inspected immediately at the nearest servicing facility.

Rear Window Demist Indicator Light

This light comes on when the rear window demister switch is turned on.

Oil Pressure Warning Light

This light warns of low engine oil pressure. If the light comes on during normal driving, stop the engine and check the oil level. (See page 4-3). If the oil level is correct, have the vehicle inspected by a Holden dealer.

Continued running of the engine when the oil pressure warning light is on may damage the engine.

Charge Warning Light

If the light comes on while the engine is running, it may indicate that there is something wrong with the charging system. Turn the engine off and check the alternator belt. If the belt is loose, broken, missing or if the light remains on, see your Holden dealer immediately.

Do not continue driving if the belt is loose, broken or missing.

Park Brake Light

This light will come on (with the ignition ON) when the park brake is applied and will stay on until the park brake is fully released.

High Beam Light

This light will come on whenever high beam is used.

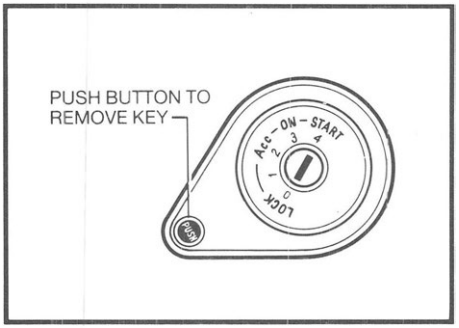
IGNITION SWITCH

Turn Signal/Hazard Indicator Lights

When the left or right turn signal is operating the corresponding indicator light will flash.

If, at any time, either indicator light flashes faster than normal, it may be caused by a blown turn signal globe. If this occurs check the operation of all turn signal lights.

When the Hazard Flashers are operated, both indicator lights will flash.



"LOCK" Normal parking position (0)

The ignition key can only be removed at this position.

To turn the ignition key to "LOCK" from "ACC" or "ON", turn the key to "OFF" and press in the key release button, then turn the key to "LOCK".

To lock the steering wheel, remove the key. To unlock the steering wheel, insert the key and turn it gently while rotating the steering wheel slightly right and left.

Never press the key release button and remove the key while driving. If the key is removed, the steering wheel will lock.

"OFF" (1)

The engine can be turned off without locking the steering wheel.

"ACC" (Accessories) (2)

This position activates electrical accessories such as the radio when the engine is not running.

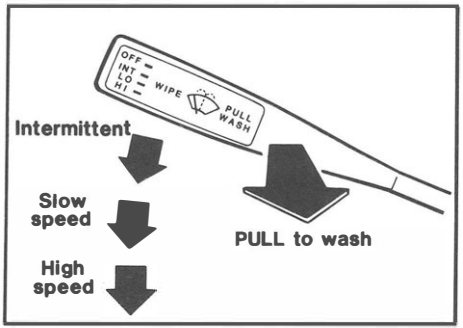
"ON" Normal operating position (3)

This position turns on the ignition system and electrical accessories.

"START" (4)

This position starts the engine. As soon as the engine has started, release the key immediately. It will automatically return to the "ON" position.

WINDSCREEN WIPER AND WASHER SWITCH



The windscreen wipers and washers are controlled by the stalk on the left hand side of the steering column.

Wipers

To operate the wipers, move the stalk downward. There are three positions

INT — for intermittent (single sweep) operation

LO — low speed continuous wiping

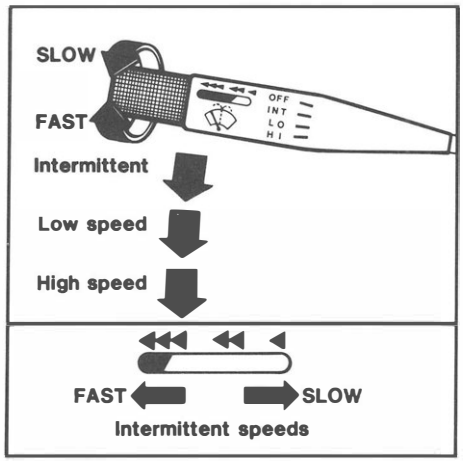
HI — high speed continuous wiping.

Do not operate the wipers if the screen is dry.

Washers

To operate the washers, pull the stalk toward the steering wheel.

Do not operate the washers continuously for more than thirty seconds, or if the reservoir is empty.



Variable Intermittent Wipe Function (where fitted)

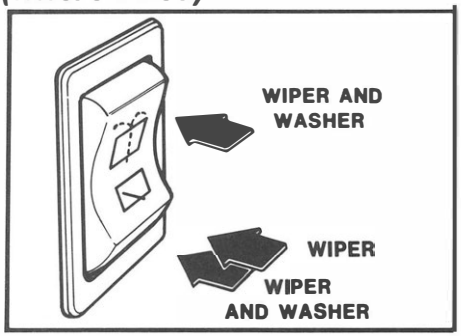
On these models, the frequency of intermittent wiping can be varied between approximately 4 and 12 seconds by twisting the end of the control stalk.

The sliding blue bar on the face of the stalk indicates the frequency selected.

▶ indicates the slowest frequency (approx. 12 seconds)

▶ ▶ ▶ indicates the fastest frequency (approx. 4 seconds)

REAR WINDOW WIPER AND WASHER SWITCH (where fitted)



Rear Wiper

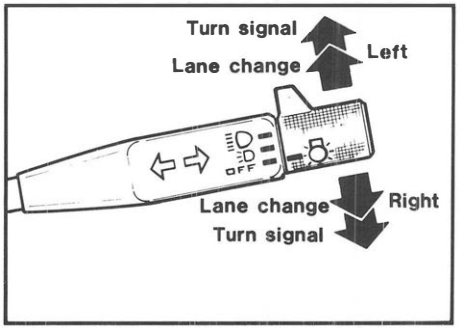
To operate the rear wiper, depress the lower half of the switch. To turn the wiper off again, push the upper half to move the switch back to its mid position.

Rear Washer

When the wiper is switched "ON" the washer can be operated by further depressing the lower half of the switch. The washer will cease operating when the switch is released.

When the wiper is not operating, the wiper and washer can be operated simultaneously by depressing the upper half of the switch. Both wiper and washer will cease operating when the switch is released.

TURN SIGNAL AND HEADLAMP SWITCH



The turn signal and headlamp functions are controlled by the stalk on the right hand side of the steering column.

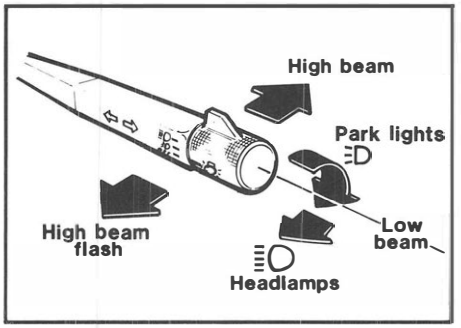
Turn Signal

Move the stalk up to operate the left turn signals and down to operate the right turn signals.

As the turn is completed and the steering wheel returns to the straight ahead position the signal will be cancelled. If however, you are executing a gradual turn, the signals may not cancel owing to the steering wheel not being turned far enough to operate the cancelling mechanism.

Lane Change

To signal a lane change, move the stalk up or down to the point where the light begins to flash. The signal will turn off immediately the stalk is released.



Light Switch

The lights are operated by turning the knob on the end of the stalk in a forward direction.

The first position operates the tail, parking, number plate and instrument lights.

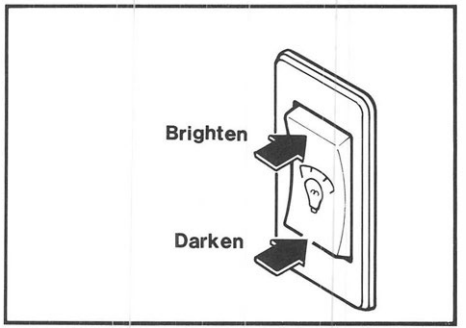
The second position operates the headlamps.

The high beam operation is selected by pushing the stalk away from the steering wheel. Low beam is selected by moving the stalk back to its original position.

High Beam Flash

The high beam lights can be operated at any time by pulling the stalk towards the steering wheel.

INSTRUMENT LIGHT DIMMER

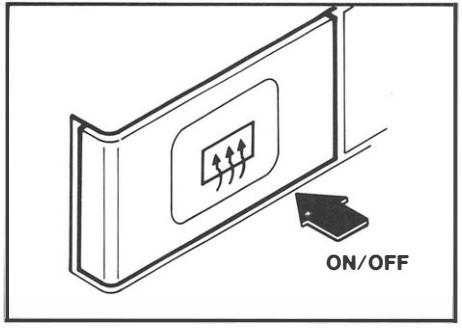


Instrument light dimmer

Depress the upper half of the switch to brighten the instrument lights.

Depress the lower half to dim the instrument lights.

REAR WINDOW DEMISTER



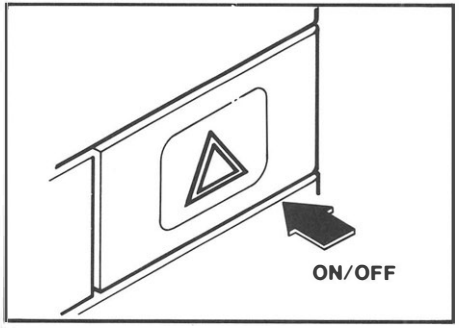
To demist the rear window glass, push the switch in. (The ignition must be "ON" and, preferably, the engine should be running).

A warning light will glow to indicate the demister is on.

To turn off, press the switch again.

NOTE: When you clean the car, do not clean the inner side of the window with abrasive type cleaners, and do not use any type of scraper to remove foreign deposits from the inner glass surface.

HAZARD WARNING FLASHERS



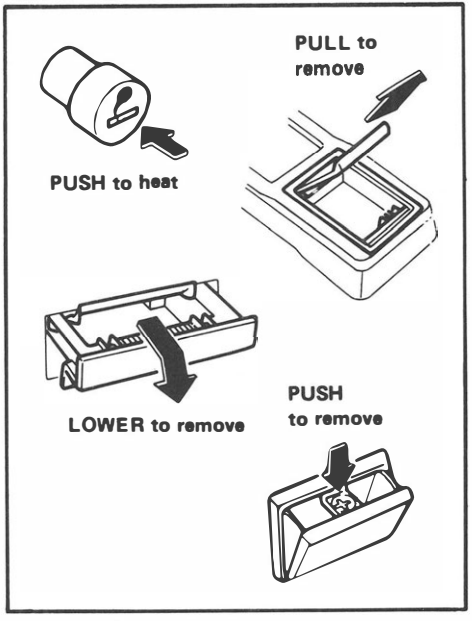
When the switch is pressed 'ON' all turn signal lights will flash simultaneously.

Use this feature if you are stopped or parked under emergency conditions, to warn other drivers.

To cancel, press the switch again.

NOTE: In some states, it is an offence to use hazard warning flashers in other than emergency situations.

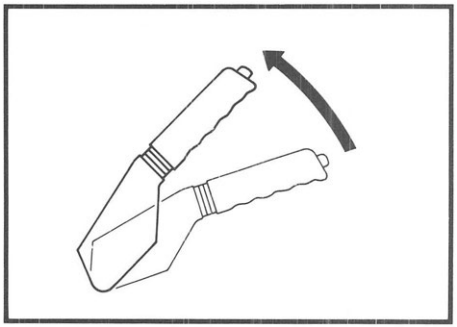
CIGARETTE LIGHTER AND ASHTRAYS



Push the lighter in all the way. When the lighter has heated, it will spring out.

Replace the lighter in its original position after use.

PARK BRAKE LEVER

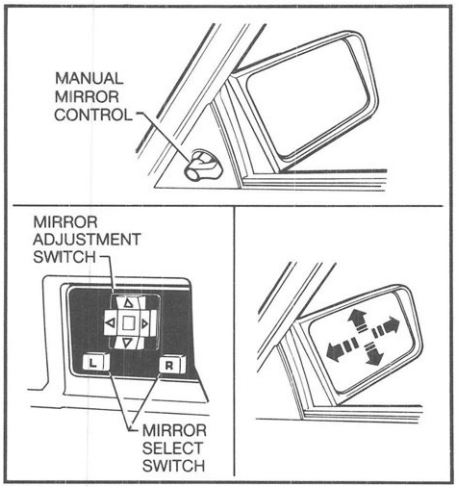


To apply the park brake, pull the lever upwards while depressing the foot brake pedal.

To release the park brake, depress the foot brake pedal, pull the lever up slightly, depress the button and lower the lever completely.

Ensure that the park brake warning light is off before driving away.

EXTERIOR MIRRORS



Manual Remote Mirrors

These mirrors can be adjusted to the required angle by moving the control lever.

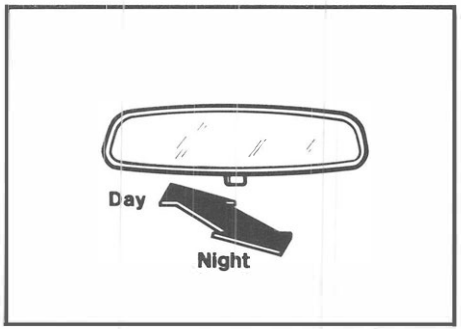
Electric Mirrors

If your vehicle is fitted with electric mirrors, the mirror select and adjustment switch is located to the right of the steering column.

Select the mirror to be adjusted by pushing the appropriate select switch down (L or R).

Push the relevant quarter of the mirror adjustment switch to achieve the desired position.

INTERIOR MIRROR

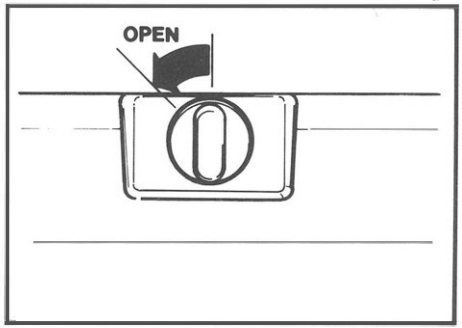


The interior mirror is equipped with a day/night anti-glare function.

During daylight driving, the control lever on the bottom of the mirror should be set in the forward position (toward the windscreen).

At night the lever can be moved back (away from the windscreen) to select the anti-glare function. This will reduce glare from the headlights of following vehicles.

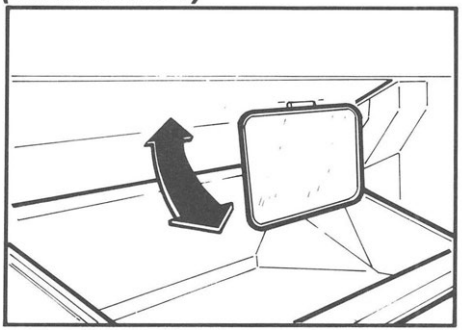
GLOVE BOX



The glove box may be opened by turning the knob as shown.

Keep glove box lid closed while driving to prevent injury in an accident or during a sudden stop.

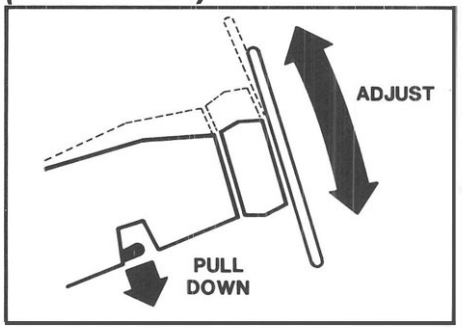
GLOVE BOX MIRROR (where fitted)



The mirror swings down from the right hand top of the glove box.

Make sure the mirror is folded away before closing the glove box lid.

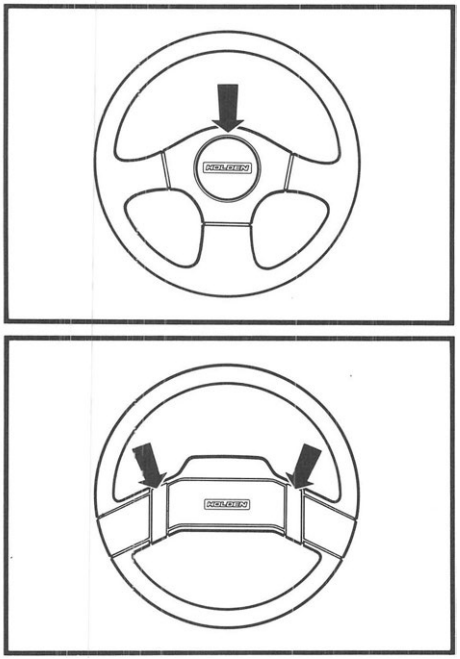
TILT STEERING WHEEL (where fitted)



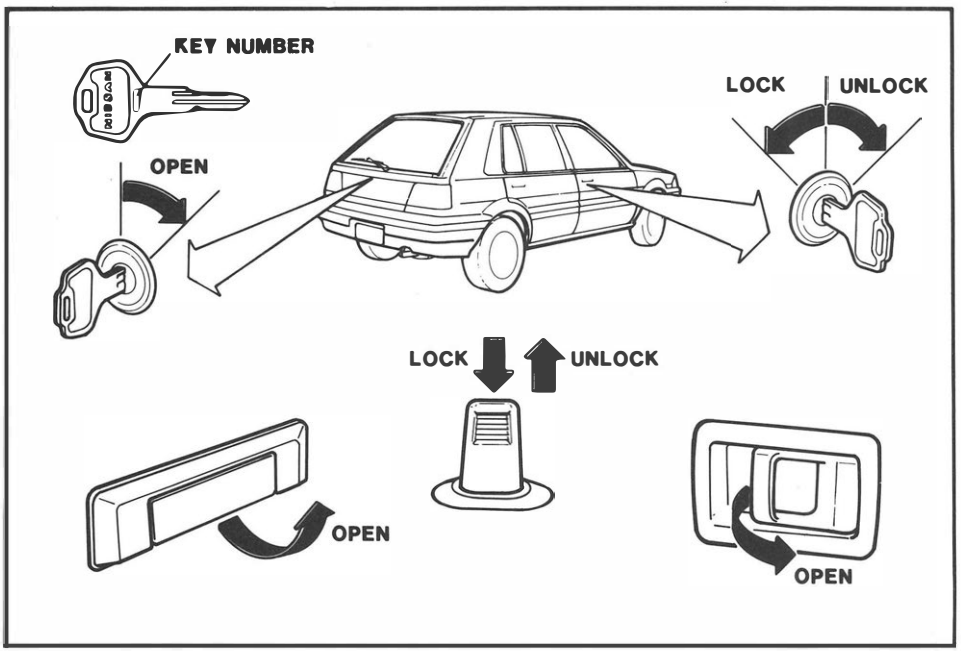
Push the lock lever down and adjust the steering wheel up or down to the desired position. Push the lock lever up securely to lock the steering wheel in place.

Do not adjust the steering wheel while driving.

HORN



The horn may be operated by pressing the centre pad and/or tabs on the steering wheel as shown.



As soon as you take delivery of your new Astra, make a record of the key number and keep this in a secure place.

If you lose your keys or for any other reason you need a replacement or extra key, your Holden dealer will be able to supply you with one, using the key number.

Locking front doors with the key

To lock the door, turn the key towards the back of the vehicle. To unlock, turn it towards the front.

Locking the doors without a key

Driver side door

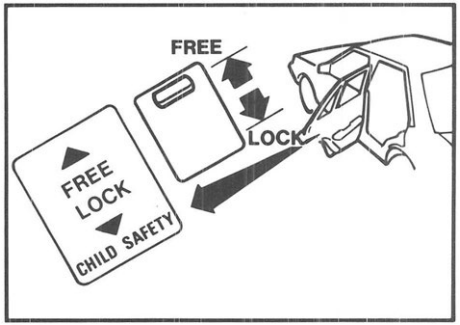
The driver side door cannot be locked from the outside without a key. Use the key to lock the door. This is to prevent the door lock from accidentally being locked with the key inside the vehicle.

Other doors

To lock from the outside without a key, move the inside lock knob to the "LOCK" position, then close the door.

- **When locking the door without a key, be sure not to leave the key inside the car.**

CHILD SAFETY DOOR LOCKS (Rear Doors)

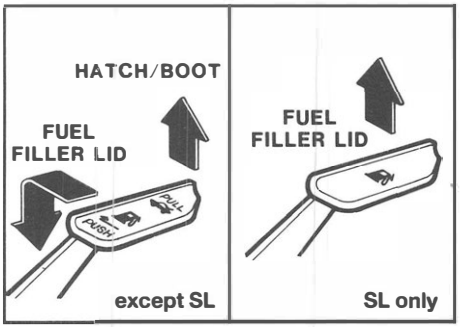


Child safety locking helps prevent doors from being opened accidentally, especially when small children are in the vehicle.

When the lever is in the lock position, the rear door cannot be opened from the inside. It can be opened only from the outside.

With the child safety lock activated and the door lock knob down, the door cannot be opened either from inside or outside.

REMOTE BOOT/HATCH AND FILLER LID RELEASE



Remote Boot/Hatch Release (except SL)

The release lever is mounted on the floor to the right of the driver's seat.

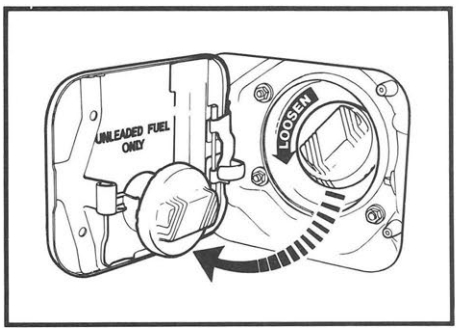
Pull the lever up to release the boot (sedan) or hatch (hatchback).

Remote Fuel Filler Lid Release

On SL models pull the lever up to release the fuel filler lid.

On all other models push the lever down and slightly to the left.

FUEL FILLER CAP

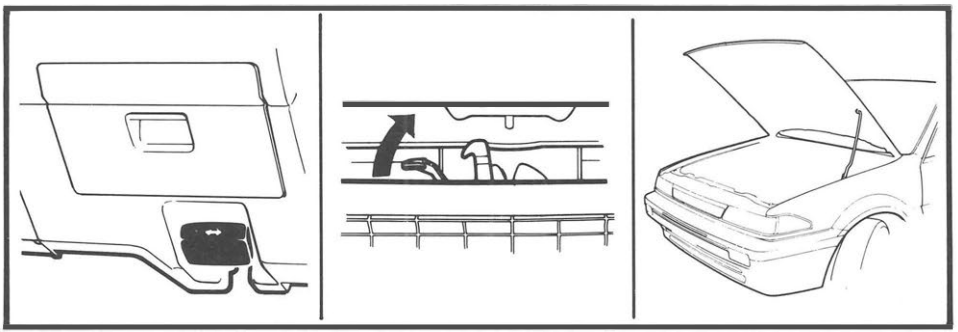


The fuel filler cap is a screw-on ratcheting type. Tighten the cap clockwise until ratcheting clicks are heard.

- **Turn off the engine while refueling.**
- **Use only a genuine Holden fuel filler cap when replacing it. It has a built-in safety valve needed for proper operation of the fuel system and emission control system.**

Refer to page 6-6 for recommended fuel.

BONNET — OPENING AND CLOSING



Opening

The bonnet release handle is situated at the right hand side of the instrument panel, below the fuse box cover. To release the bonnet pull the handle outwards.

Move to the front of the vehicle and reaching between the bonnet and grille (slightly to the left of centre) lift the safety catch with your fingers and open the bonnet.

The bonnet support is situated on the passenger side of the engine compartment. Unclip it and engage its end in the slot provided in the bonnet.

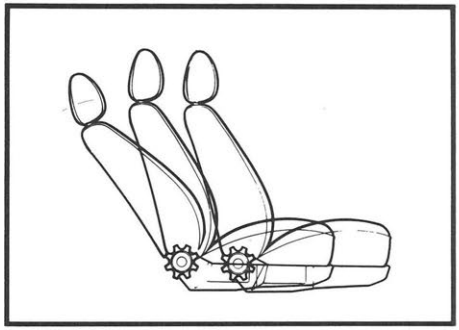
Closing

Lift the bonnet slightly to relieve its weight from the support, unhook the support and clip it back into its original position. Lower the bonnet gently until it latches over the safety catch.

Using both hands push down firmly on the **front edge** of the bonnet until it is fully closed.

Make sure it has locked fully into place.

FRONT SEATS



Fore/Aft adjustment

The fore and aft adjustment lever is situated to the front outside of the seat cushion.

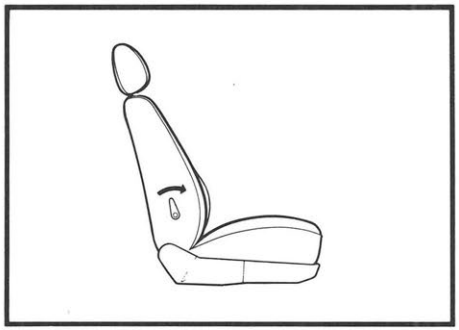
To adjust, lift the lever and slide the seat to the desired position.

Release the lever and move the seat slightly to ensure it is locked in position.

Rake adjustment

To adjust the rake of the seat back, turn the notched wheel on the outside of the seat.

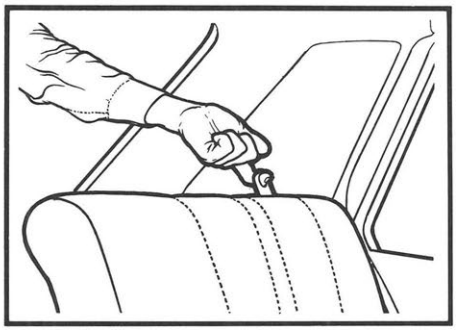
Do not adjust the driver's seat while driving. The seat may move suddenly causing loss of control.



Adjustable Lumbar Support (where fitted)

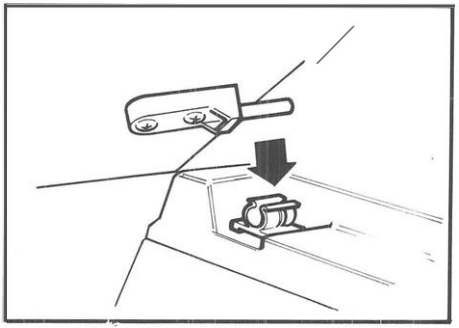
The lever located on the inner side of the drivers seat back can be moved through three positions to vary the amount of lumbar support.

SPLIT REAR SEAT



To provide extra load area either one or both halves of the rear seat back can be folded flat. Lift the lever on the top of the seat back and pull the seat back forward.

REMOVABLE LOAD AREA COVER (Hatchback)



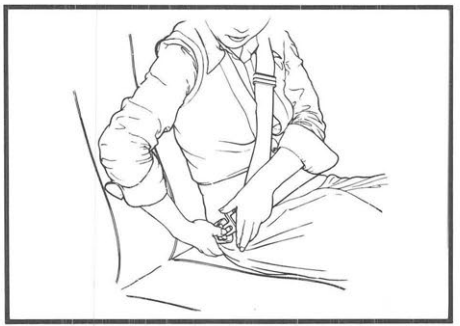
The load area cover is hinged at the front and is attached at the rear to the hatch door by two chords, so that the cover swings up when the hatch door is opened.

The two chords can be disconnected from the hatch door so that the cover remains in place when the hatch is opened.

To remove the load area cover lift at each front corner to unclip it. When refitting the cover, line up each hinge pin on the cover with its corresponding clip on the body, then push down firmly.

SEAT BELTS

3-POINT TYPE WITH RETRACTOR



To Fasten

Holding the belt by the tongue, draw it across your body and clip the tongue firmly into the buckle.

Position the lap belt portion low on the hips.

Pull the shoulder belt portion toward the retractor to take up any slack.

To Release

Press the release button on the buckle.

2-POINT TYPE WITHOUT RETRACTOR

The rear centre seat belt is a two-point type without any Emergency Locking Retractor. It is fastened and unfastened in the same manner as the retractable belts.

To adjust the belt, after belt is locked, hold the adjusting device at a right angle to the belt and pull the free end of the belt till the slack is taken up.

Position the belt as low as possible on your hips, not on your waist.

EMERGENCY LOCKING RETRACTORS (ELR)

The front and two outer rear seat belts are equipped with Emergency Locking Retractors (ELRs). The ELR is a belt retraction device which locks the belt only when the car speeds up, slows down or corners at a certain rate. In normal situations the ELR allows you to pull the belt out freely. However, when pulled out abruptly, the belt will lock. In such a case, allow it to rewind into the retractor about 25 mm and then pull it out slowly. If the vehicle is parked on an incline, the belt may lock. Move the vehicle to level ground to regain free movement of the belt.

Check ELR operation

The ELR has two entirely independent systems to lock the belt when required:

1. *Vehicle sensitive:*
   The belt locks if speed or direction changes suddenly.

   To check: apply moderate braking and, while still braking, try to withdraw webbing from the ELR.
2. *Webbing sensitive:*
   The belt locks if the webbing is withdrawn abruptly.

   To check: try to withdraw webbing from the ELR quickly.

WARNING: Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the pelvis, chest and shoulders, as applicable. Wearing the lap section of the belt across the abdominal area must be avoided.

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oils, and chemicals and particularly, battery acid. Cleaning may safely be carried out using mild soap and water. Allow the belts to dry completely before using them. Do not allow wet belts to roll up in the retractor. The belt should be replaced if webbing becomes frayed, contaminated, or damaged.

It is essential to replace the entire assembly after it has been worn in severe impact even if damage to the assembly is not obvious. Belts should not be worn with straps twisted. Each seat belt assembly must only be used by one occupant: it is dangerous to put a belt around a child being carried on the occupant's lap.

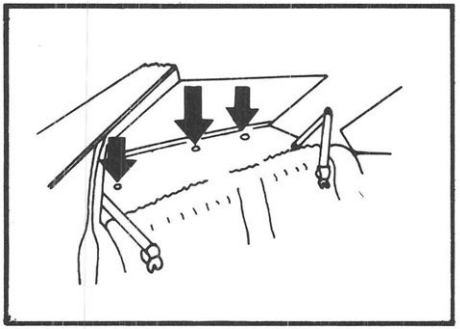
If the vehicle is to be treated with an after-market rust preventative all ELRs should be removed from the vehicle during treatment. Failure to do so may render the ELRs inoperative.

CHILD RESTRAINT ANCHORAGES

Your car is designed to accommodate child restraints on the rear seat. When using a child restraint, carefully read and follow the installation instructions supplied with it.

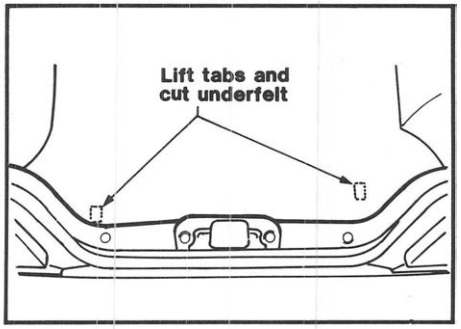
WARNING: Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.

Use a 10mm thick spacer between each upper anchor fitting and the load area floor or rear window ledge. Use bolts of minimum length 20mm.



Anchorage Locations — Sedan

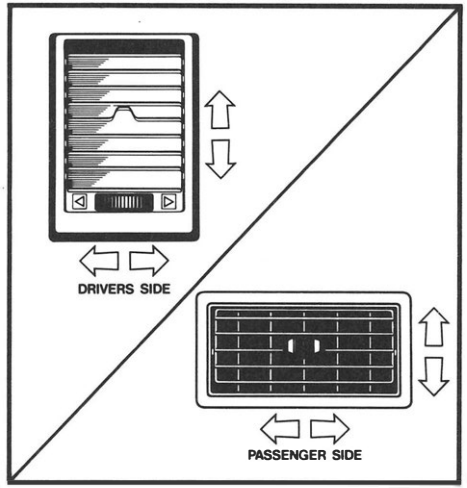
Three anchorage points are located on the rear window ledge. Remove the plugs and install child restraints with correct anchor bolts.



Anchorage Locations — Hatchback

Two anchorage points are located on the floor behind the rear seat. Ensure that the correct anchor bolt is used.

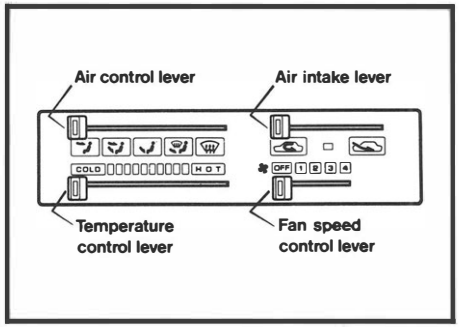
AIR VENTS



The air flow direction can be adjusted or the vent closed completely as shown above.

Note: the vents will only provide air when the heater air control lever is adjusted to the "face level" or "bi-level" position.

HEATER CONTROLS



Air Control Lever

- Directs air to face level only.
- Directs air to face level and floor level (bi-level air).
- Directs air to floor level only.
- Directs air to floor level and windscreen.
- Directs air to windscreen only.

Air Intake Lever

- Recirculates only the air in the car when fast heating is needed.
- Half way to obtain some fresh air plus recirculation.
- To obtain fresh air only for ventilation or heating.

Fan Switch

The fan switch has an "OFF" position and four fan speed positions — 1 (slowest speed) to 4 (highest speed).

Temperature Control Lever

With the lever moved to the far left (COLD) the air delivered through the vents will be at ambient temperature. As the lever is moved to the right (towards HOT) the temperature of the air will be increased.

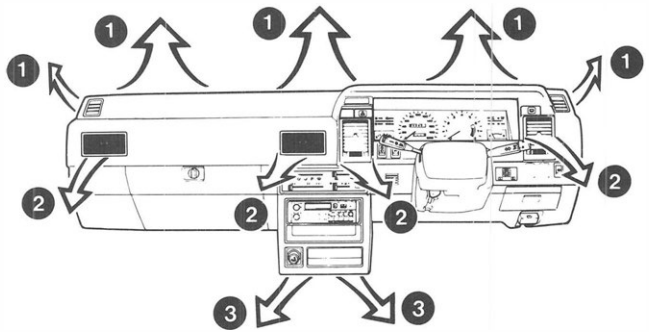
HEATER OPERATION

The table and diagram on this page indicates the most commonly required conditions and the correct heater control position to achieve them.

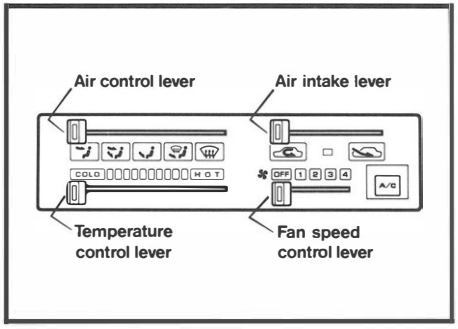
For optimum heating/ventilation performance

- Clear any snow and ice blocking the air inlet located in front of the windshield.
- For adequate rear seat heating, keep the areas beneath the front seats clear, and operate the fan as required.
- Move the 'INTAKE' lever to the 'REC' position when driving in dusty conditions.

Condition Required	*Air Control*	*Temperature Control*	*Fan Control*	*Air Intake*	*Air Outlets*
Normal	—	COLD	OFF	—	
Ventilation		COLD	1-4	Fresh	②
Heating and Ventilation		HOT	1-4	Fresh	② ③
Heating		HOT	1-4	Recirculating or Half way	③
Heating and Defogging		HOT	1-4	Fresh	① ③
Defogging only		HOT	1-4	Fresh	①



AIR CONDITIONER OPERATION (if accessory fitted)



The air conditioner will operate when the A/C switch is turned on (push in) and the fan is switched to any of its four speeds. It can be turned off either by turning the fan off or by switching the A/C switch off (press in and release).

In addition to cooling during summer, the air conditioner can also be used to demist and dehumidify the car interior in colder conditions.

The table on this page shows the required control positions.

When the air conditioner is turned off, the heater operates as described on page 1-22.

Condition Required	*Air Control*	*Temperature Control*	*Fan Control*	*Air Intake*	*Air Outlets*
Cooling		COLD	1-4	Fresh or Recirculation as desired	②
General De-Humidifying		HOT	1-4	Fresh	① ③
High Speed Defog or Defrost		HOT	1-4	Fresh	①

For optimum air conditioner performance

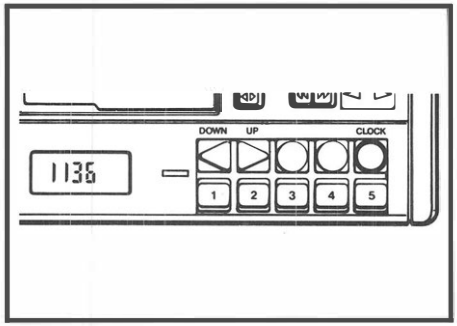
Cooling the Car

- If the car interior is extremely hot, first drive the car for two or three minutes with the windows open. Close the windows as soon as the hot air has been forced out of the car.
- Keep windows closed while the air conditioner is in operation.
- Use "recirculated air" position to cool the car quickly when the outside air is hot. Return the lever to the "fresh air" position for normal cooling.
- If the air temperature becomes too cold, turn the fan speed down or turn the air conditioner off.

CLOCK

The clock display is incorporated in the radio.

When the radio is switched off the display will be in clock display mode. When the radio is switched on or any subsequent tuning of the radio occurs; the display will change to radio mode. After 10 seconds the display will revert to clock mode.



Setting the clock

With the radio off, press the 'CLK' button and, at the same time, turn the radio on.

Release the clock button. The clock will be displayed with the minute digits flashing.

Use the 'UP' or 'DOWN' button to adjust the minutes display.

Depress the 'CLK' button again. Then use the 'UP' or 'DOWN' button to adjust the hours display (flashing).

Note: The clock distinguishes between AM (no indication) and PM (a small P on the right of the display). When adjusting the hour digits, 1 PM follows 12 AM in upward adjustment and 12 PM follows 1 AM in downward adjustment.

Press the 'CLK' button again if you wish to readjust the minutes digits.

Switch the radio off. The seconds will reset to 00 and normal clock operation will begin. Using this feature the clock can be synchronized with a "Time Standard".

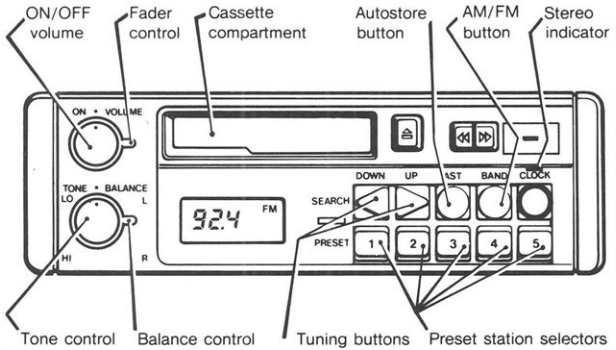
RADIO AND CASSETTE

The radio and cassette will operate when the ignition key is turned to the "ACC" or "ON" position.

Fully extend the antenna to optimise reception. (The antenna is located in the right hand front pillar).

Radio reception is affected by station signal strength, distance from radio transmitter, buildings, bridges, mountains and other external influences. Intermittent changes in reception quality normally are caused by these external influences.

RADIO OPERATION — Philips DC 568 and DC 668



To switch on, turn the "ON/VOLUME" knob clockwise. The display will show the wave band (FM or AM) and the frequency. It may also show a preset number (e.g. P1) or the mode indicator (AS).

The display will remain for 10 seconds and then revert to the time display mode. The radio display will be recalled whenever a change to the radio settings is made. The display can also be changed from time to radio and back by pressing the "CLK" button.

Tone Control

Turning the knob clockwise increases the treble response, anticlockwise increases bass response.

Balance Control

The relative volumes of the left and right channels can be varied using the balance control. Clockwise rotation increases right speaker volume, anticlockwise increases left speaker volume.

Fader Control

On models with four speakers, the relative volumes of the front and rear speakers can be varied using the fader control.

Clockwise rotation increases rear volume, anticlockwise increases front volume.

Wave Band Selection

The wave band can be switched from AM to FM by pressing the AM/FM button.

Manual and Search Tuning

Tuning is performed using the "UP" and "DOWN" tuning buttons. Three different tuning functions can be achieved depending on the interval between pressing and releasing one of the buttons.

1. One Step Manual Tuning

If either button is pressed and released within 0.2 seconds the frequency will change by a single step (9 kHz for AM, 100 kHz for FM). A beep will sound as the button is released to indicate the tuning step has taken place.

2. Search Tuning

If either button is pressed longer than 0.2 seconds, a beep will be heard. If the button is then released (before 2 seconds has elapsed) the radio will search for the next transmitting station.

Search tuning occurs at two sensitivity levels. Searching is started at the low sensitivity level where only strong transmitters are detected.

Furthermore, automatic search tuning always starts from the frequency to which the radio was set. Once activated, the radio scans the band looking for strong transmitters. If a transmitter is found, the search process is stopped.

If no strong transmitters are found when the highest or lowest frequency is reached, the radio switches over to the high sensitivity level so that weaker stations can be detected, and searching is continued.

Search tuning is stopped if:

a. a transmitter is found,
b. another button is pressed,
c. the radio is switched off.

3. Continuous Manual Tuning

If either button is pressed for longer than 2 seconds a second beep will sound and the radio will begin changing frequency at high speed until the button is released. If either end of the frequency range is reached, the frequency changes automatically to the opposite end of the range.

Preset Station Selection

One AM and one FM station can be preset on each of the five preset channels.

When a preset station is selected by pressing and immediately releasing its corresponding button, the channel number is shown at the right hand end of the display. To alter the station on any preset channel, tune the radio to the desired frequency, then depress and hold the preset button you wish to alter until a double beep sounds and the displays shows "— S —" indicating that storing of the new station has occurred. The button can then be released.

Preset stations will be erased if the battery is disconnected.

Autostore Function

Autostore is an extended and automatic search tuning system on four sensitivity levels. The radio offers the possibility to automatically store five additional FM stations and five additional AM stations.

All other stations programmed on the normal presets (for each band) will not be erased.

This is a highly convenient feature when travelling outside your normal area. You may automatically select the strongest stations in the area without knowledge of their frequencies.

Autostore Programming

Once the desired waveband has been selected, autostore programming can be commenced by pressing the "AST" button for more than 2.5 seconds. A beep will sound and the "AS" indicator on the display will begin to flash. This indicates that the wave band is being scanned and the five strongest stations are being automatically stored on the five preset buttons. When five stations have been located and stored a bitonal beep will sound and the radio will be tuned to preset channel P1.

This procedure can be repeated for five more stations on the other waveband.

If five stations cannot be found, the remaining channels will be programmed to the highest frequency in the band (108 mHz for FM, 1602 kHz for AM).

Use of the Autostore function will NOT erase stations stored on the normal preset channels.

Replacing Autostored Stations

If a station stored on an Autostore preset button is not required it can be replaced by the next strongest station in the band in the following manner:-

Press the preset button you wish to change until the "AS" indicator on the display begins to flash.

The scan procedure is operated until the next strongest station is located and stored to the preset button. If no other station can be found, the previous preset station remains unchanged.

Selecting an Autostored Station

Select the required wave band, press the "AST" button and release it within 2.5 seconds. The radio will now be in Autostore tuning mode and pressing any preset button will tune the radio to the station Autostored to that channel.

If the selected wave band has not been programmed by Autostore, and the "AST" button is pressed for less than 2.5 seconds, "— E —" will be displayed and the radio will continue to receive the previously selected station in normal mode.

Switching from Autostore to Normal Mode

To switch from Autostore mode to normal mode, press the AM/FM button. The "AS" indicator will disappear and the radio will switch to the station last selected in normal mode on the same wave band. Alternatively if either the "UP" or "DOWN" tuning button is pressed, the radio will switch to normal mode but the station will remain the same.

Transferring Autostored Presets to Normal Presets

It is possible to transfer either one or all Autostored stations to normal preset channels.

Transferring one station

Select the Autostored station to be transferred.

Briefly press the "UP" or "DOWN" tuning button. The radio switches to normal tuning mode while retaining the station.

Press the required preset button until the beep sounds and "— S —" is displayed.

Transferring all five stations

Select the required wave band.

Switch the radio off.

Keep the "AST" button depressed while switching the radio back on.

The Autostored stations will now also be stored on the normal preset channels of the same wave band.

Stereo Indicator

The Stereo Indicator light will illuminate whenever a station is being received in stereo.

CASSETTE OPERATION (568)

Holding the cassette with the open side to the right and the full reel toward the rear of the car, insert it into the cassette compartment until the tape button springs out. The cassette will play through to the end, at which point the unit will automatically switch back to radio reception.

While the cassette is playing the tape signal lamp will be on.

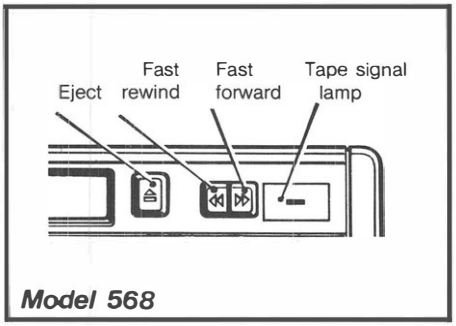
Play-back may be halted at any time by depressing the eject button halfway. The cassette will remain in the unit and radio reception will be resumed. This is standby mode. Play-back can be restarted by again pressing the eject button halfway.

The cassette can be removed by pushing the eject button **fully in.**

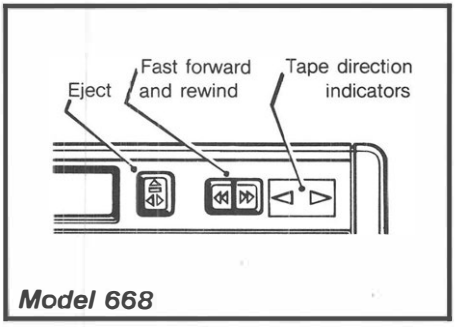
Fast Winding

Fast forward and fast rewind are operated by pushing the respective buttons. Fast winding can be stopped by pressing the opposite button. Alternatively the eject button can be pressed, which will stop the tape in standby mode and resume radio reception.

If the tape is in standby mode, the eject button must be depressed halfway before fast winding can be operated again.



Model 568



Model 668

CASSETTE OPERATION (668)

Holding the cassette with the open side to the right and the full reel toward the rear of the car, insert it into the cassette compartment until the tape button springs out. The cassette will play through to the end, at which point the unit will automatically change tape direction and play the other side of the cassette.

The direction of playback is shown by the tape direction indicators.

Playback can be halted by pushing the eject button fully in. The cassette will be ejected and radio reception will be resumed.

Playback Direction

While a cassette is playing the direction of playback can be changed by pressing the eject button halfway in.

Fast Forward/Rewind

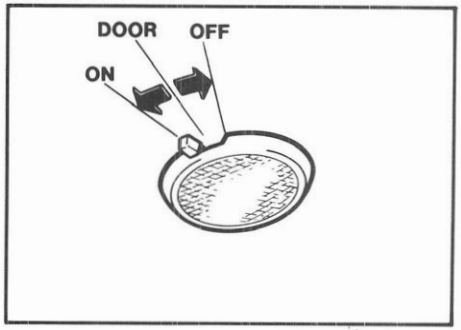
For fast forward operation, press the button with arrows that show the same direction as the illuminated tape direction indicator. For rewind press the opposite button.

Normal play may be resumed by a slight touch of the other button.

CASSETTE OPERATING PRECAUTIONS

- To maintain good quality sound, Holden recommends that you use cassette tapes of 60 minutes or 90 minutes maximum in length.
- Cassette tapes should be removed from the player when not in use. Store cassettes in their protective cases and away from direct sunlight, heat, moisture and magnetic sources.
- Direct sunlight can cause the cassette to become deformed. The use of deformed cassettes may cause the cassette to jam in the player.
- Do not use cassettes that have labels which are peeling and loose. If used, the label could jam in the player.
- If a cassette has loose tape, insert a pencil through one of the cassette hubs and rewind the tape firmly around the hubs. Loose tape may cause tape jamming and wavering sound quality.
- If the tape becomes jammed in the player, do not use sharp objects in an attempt to remove the tape. Consult your Holden dealer.
- Over a period of time, the playback head, capstan and pinch roller may gather a tape coating residue as the tape passes over the head. This residue accumulation can cause weak or wavering sound, and should be removed periodically (about every six months) with a head cleaning tape. If the residue is not removed periodically, the player may need to be overhauled for cleaning.

INTERIOR LIGHT



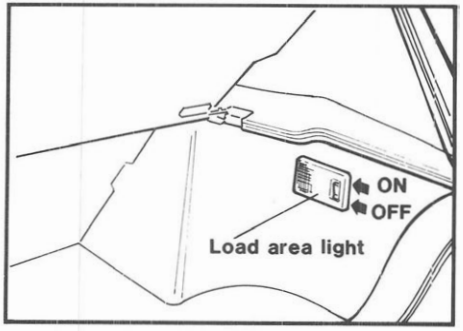
The interior light switch has three positions. 'OFF', 'ON' and 'DOOR'. When the switch is moved to the 'ON' position the light will come on. When moved to the 'DOOR' position the light will come on and go off with the opening and closing of the front doors (SL and SLX) or front/rear doors (SLE). In the 'OFF' position the light stays off all the time.

Time delay function (where fitted)

On some models a time delay is installed in the interior light circuit. This keeps the interior light on for approximately 10 seconds after the last open door is closed.

The switch must be in 'DOOR' position for this function to operate.

LOAD AREA LIGHT (Hatch back)



The load area light is situated on the right hand side just below the load area cover.

The light comes on when the hatch door is opened.

If you wish to leave the hatch door open for an extended period, the light can be turned off by pressing the lower half of the switch.

Starting And Operating

Running in 2-2
Safety checks before driving 2-2
Precautions when starting and driving 2-3
Starting the engine 2-4
Parking 2-4
Driving with manual transaxle 2-4
Driving with automatic transaxle 2-5
Towing a trailer 2-6
Economical driving 2-7

RUNNING IN

It is not necessary to follow a formal run-in schedule. However, observation of some simple precautions during the first few hundred kilometres of driving, will help to optimize the performance and economy of your vehicle in the future.

For the first 500 km:

— Do not exceed 80 kph.

— Do not labour the engine

— Avoid abrupt takeoffs and full acceleration

— Avoid heavy braking unless in an emergency situation.

For the first 1500 km:

— Do not use the vehicle for towing a load greater than 400 kg.

— Do not drive at a constant speed for any length of time. From 500 to 1500 km include some driving at higher speed and heavier acceleration.

SAFETY CHECKS BEFORE DRIVING

BEFORE ENTERING THE CAR

- Check that windows, mirrors and light lenses are clean.
- Visually inspect the condition of the tyres. Check tyre pressures.
- Check that the area around the car is clear.
- Make sure that the bonnet is closed securely.

AFTER ENTERING THE CAR

- Position and adjust seats.
- Adjust tilt-away steering wheel (where fitted).
- Adjust inside and outside mirrors.
- Fasten seat belt and ensure any passengers do likewise.
- Check the operation of lights, switches and horn.
- Check the operation of warning lights when key is turned to "ON" position.

Fluid levels such as engine oil, engine coolant, brake fluid, windshield washer fluid and battery electrolyte should be checked frequently, or at least whenever the car is refuelled.

Exhaust Gas

Never inhale exhaust gases. They contain carbon monoxide, a colourless and odourless gas which if inhaled in sufficient quantity, can cause death. If it is suspected that exhaust fumes are getting into the passenger compartment, have the car checked and the leakage corrected immediately.

Some cautions to observe with regard to carbon monoxide gas:

1. Do not sit in a parked car for an appreciable length of time with the engine running.
2. Do not run the engine in an enclosed space such as a garage with the door closed for any length of time.
3. If, when in an open space, it is necessary to sit in the car with the engine running, turn the vent to outside air and switch on the fan. This will force fresh air into the car.
4. Do not drive with the boot lid (or rear hatch door) open for any length of time because exhaust fumes from the tailpipe could be drawn into the car.
5. Always keep the front ventilator grille free from snow, leaves or any other kind of obstruction so that the car's ventilation system can function properly at all times.

Catalytic Converter

A catalytic converter for emission control is installed in the exhaust system. Inside this converter, exhaust gases are burned at high temperature to help reduce pollutants.

Certain engine malfunctions, particularly involving the electrical, fuel injection or ignition systems, will result in large amounts of unburned fuel, causing the converter to reach elevated temperatures. Discontinue operation of the vehicle if the engine misfires, or if noticeable loss of performance or other unusual operating conditions are detected. In this case, have the vehicle inspected by an authorized Holden dealer.

CAUTION:

Use **UNLEADED PETROL ONLY** of the type recommended in "Oil and fuel recommendation". Leaded petrol will seriously damage the catalytic converter. Keep an eye on your fuel gauge; running out of petrol could possibly cause damage to the catalytic converter. Refrain from racing the engine. Do not stop or park the vehicle over inflammable materials, such as dry grass, waste paper, or rags that may come into contact with the exhaust system. When parking, ensure that people or inflammable materials are kept away from the exhaust pipe.

- **Driving with vacuum assisted brakes:**
  The brake booster aids braking by using engine vacuum. If the engine stops you can stop the vehicle by depressing the brake pedal. However, greater foot pressure on the brake pedal will be required to stop the vehicle and the stopping distance will be longer.
- **Driving with power assisted steering:**
  Power assisted steering is designed to use a hydraulic pump, driven by the engine, to assist steering.

  If the engine stops or drive belt breaks, you will still have control of the vehicle. However, much greater steering effort is needed, especially in sharp turns or at low speeds.

  Wet brakes

  After washing the car or when driving under extremely wet conditions, the brake pads and/or linings may get wet. Lightly apply brake several times as the car is moving slowly to dry the linings.

  Do not drive the car at normal speeds until the brakes are functioning correctly.

STARTING THE ENGINE

- Make sure the parking brake is applied.
- Place the gearshift lever in "Neutral" for manual transaxle or in "N" or "P" position for automatic transaxle.

The starter motor is designed not to operate with the automatic gear selector in positions other than "N" or "P".

- Do **not** depress the accelerator while starting.
- After starting the engine, release the ignition key.
- Do not run the starter motor continuously for more than 10 seconds. Wait at least 10 seconds before running it again.

Starting a flooded engine

If the engine is flooded, depress the accelerator fully to the floor while cranking.

When the engine starts release the pedal gradually as the engine speeds up.

Warm Up

When starting from cold allow the engine to run for about 30 seconds before driving off.

Travel at moderate speed and avoid hard acceleration until the temperature gauge moves off "C".

PARKING

Do not park the vehicle over flammable materials, such as dry grass, waste paper, or rags as they may burn easily.

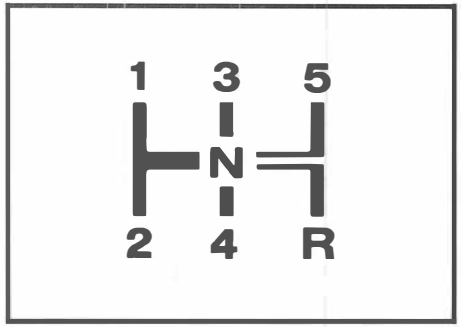
1. Firmly apply the parking brake.
2. **Manual transaxle models:**

   When parking on a downhill grade, place the gearshift lever in the "REVERSE" position. When parking on an uphill grade, place the gearshift lever in the "1st" position.

   Automatic transaxle models:

   Move the gearshift lever to the "P" (PARK) position.
3. Turn the ignition key to the "LOCK" position and remove the key.
4. Lock all the doors after ensuring that the keys have not been left inside the car.

DRIVING WITH MANUAL TRANSAXLE



The manual transaxle is a five speed transaxle in which both fourth and fifth gears are overdrive ratios.

When shifting from one gear to another, be sure to depress the clutch pedal all the way to the floor to avoid clashing and possibly chipping the transaxle gears.

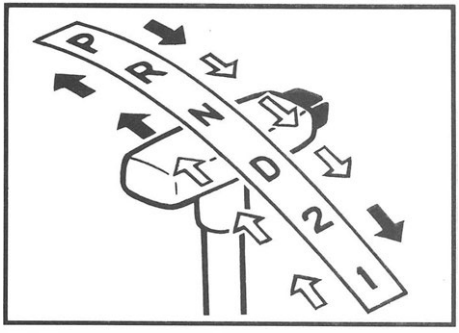
Shift into reverse only when the car has completely stopped.

Do not drive with your foot resting on the clutch pedal as damage to the clutch may result.

Never slip the clutch by releasing the pedal just enough to hold the car on a hill.

When climbing steep grades, or when quick acceleration is required, shift to a lower gear.

Suggested shift speeds for economical driving are shown on page 2-7.



Shift lever operation

Push the button located on the end of the selector lever when engaging "R" and "P" and when shifting from "2" to "1" as indicated by the solid arrow.

The lever can be shifted freely into any of the positions indicated by the outline arrow.

Moving off

When starting off, keep the foot brake depressed while selecting the required gear. Make sure the park brake is released, then release the foot brake and gradually depress the accelerator to start the car moving.

When the engine is cold, the idle speed is high, so use caution when engaging "D" or "R" after a cold start.

Gear selector positions

"P" (Park):

Use this position when the vehicle is parked or when starting the engine. Use this position together with the parking brake. When parking on a hill, first apply the parking brake and then shift into the "P" position.

"R" (Reverse):

Use this position to back up. Shift into this position only after the vehicle has completely stopped.

"N" (Neutral):

Neither forward nor reverse gear is engaged. The engine can be started in this position. You may shift to "N" and restart a stalled engine while the vehicle is moving.

"D" (Drive):

Use this position for all normal forward driving.

"2" (Second gear):

Use for hill climbing, effective engine braking on downhill grades, or starting on slippery roads.

Do not downshift into the "2" position at speeds over 115 km/h. Do not exceed 115 km/h in the "2" position.

"1" (Low gear):

Use this position when climbing steep hills slowly or driving slowly through deep snow, sand or mud, or for maximum engine braking on steep downhill grades.

Do not shift into the "1" position at speeds over 65 km/h. Do not exceed 65 km/h in the "1" position.

Accelerator downshift — In "D" position —

If you require extra power for rapid passing or hill climbing, fully depress the accelerator pedal to the floor. This shifts the transaxle down into second gear or first gear, depending on the vehicle speed.

Cautions

- The engine can only be started with the gear lever in the "N" or "P" position.
- Keep the engine at idling speed when shifting from "N" to any driving position.
- Do not increase engine speed to hold the car on an incline.
- Never shift to "P" or "R" while vehicle is moving.

TOWING A TRAILER

WARNING: Your vehicle warranty may be voided if the following loads are exceeded, or a non-genuine towbar is fitted.

Towing a trailer will not only place extra stress on your car but will also affect its steering ability, durability and economy. If the need to tow a trailer arises consult your Holden dealer for an explanation of proper use of towing equipment.

Maximum load limits

Maximum gross vehicle mass of a trailer (including tyres and other loaded equipment).

1. Never exceed the value specified in the following chart:

Trailer with brakes	Trailer without brakes
900 Kg	400 Kg

2. The total trailer load must be lower than the following three values even if it does not exceed the maximum permissible loads.

(a) Towing capacity displayed on a towbar

(b) Trailer's gross vehicle mass marked on a coupling body

(c) Gross vehicle mass marked on a trailer data plate.

Maximum permissible tongue load

Never allow the tongue load to exceed 10% of total trailer load. If the tongue load exceeds 10%, rearrange the cargo in the trailer.

Maximum permissible rear axle load

Never exceed the gross axle weight rating rear (GAWR).

G.A.W.R. ..... 749 kg

Tyre pressure

Ensure that tyres are inflated to the maximum recommended pressure (refer page 6-3).

Safety chain

The safety chain is designed to prevent accidents should the connection between car and trailer fail while towing. Be sure the chain is slack enough to permit turning corners and, if possible, tight enough to prevent the towing coupling from dropping on the ground.

Trailer brakes and lighting

Ensure that trailer conforms to state regulations regarding brakes and lighting. Ensure that lighting harness is long enough to allow for turns.

Operating Precautions

- Avoid towing a trailer during the running-in period.
- Avoid abrupt starts, accelerations and stops.
- Always drive at a moderate speed and within state speed limits.
- Have your car serviced more often than that specified in the recommended Maintenance Schedule.

NOTE: Because of the increase in weight and extra power required, trailer towing will increase fuel consumption.

WARNING: Never 'tap' into the vehicle's hydraulic braking system to facilitate trailer braking.

ECONOMICAL DRIVING

Fuel consumption will be influenced by traffic conditions, driving speed and terrain. However, attention to the following points will help to optimise fuel economy.

Driving

Accelerate smoothly and briskly up to your desired speed using moderate accelerator settings. Full throttle acceleration or excessively light acceleration will be less economical.

Once you have achieved the desired speed, try to maintain it (after the running in period).

In a vehicle with manual transaxle, the gear change points listed below will achieve the best fuel economy.

Do not labour the engine at low speed in high gears.

Recommended upshift speeds

Gear Change	Speed (km/h)	
	1.6l	1.8l
1-2	20	20
2-3	35	35
3-4	50	50
4-5	80	70

Rolling resistance

Incorrect wheel alignment, under-inflated tyres and dragging or binding brakes will all adversely affect fuel consumption.

Do not drive with your foot resting on the brake pedal.

Aerodynamic drag

Roof racks, weather shields, exterior sunvisors and driving with windows open will all increase the aerodynamic drag of the vehicle and therefore increase fuel consumption.

If you use roof racks, keep the load as low as possible to minimise drag.

Aerodynamic drag increases with speed. Above 90 km/h fuel economy will be adversely affected as speed rises.

Engine

Have your car regularly serviced in accordance with the authorised Maintenance Schedule. This will ensure that the engine is always operating efficiently.

Avoid long warm-ups or excessive engine idling. If you are faced with a wait of several minutes, turn the engine off to conserve fuel.

Use of the air conditioner places extra load on the engine and thus increases fuel consumption. If your vehicle is fitted with air conditioning use only when necessary.

In Case Of Emergency

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Freeing the vehicle from sand, snow, mud 3-2
Starting the vehicle when it has a flat battery 3-3
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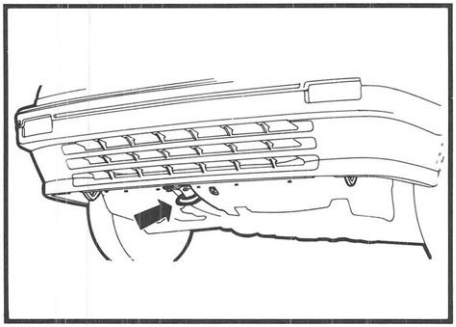
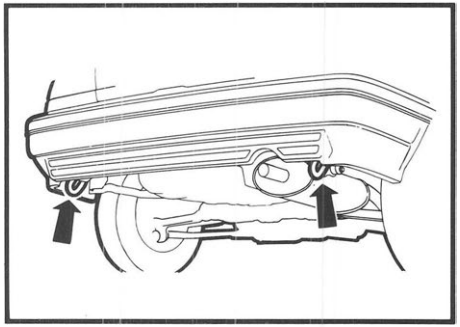
EMERGENCY SITUATIONS

If your vehicle is disabled or stopped in an emergency situation, where possible move it off the road; preferably onto firm flat ground.

Use your hazard warning flashers to warn other road users (see page 1-9 for instructions).

FREEING THE VEHICLE FROM SAND, SNOW OR MUD





When trying to free a vehicle under conditions where one driving wheel is spinning and the other is stationary, **avoid over-revving the engine** as this could cause tyre and/or differential damage due to the spinning wheel rotating at twice normal driving speed.

If the car cannot be freed under its own power and it becomes necessary to tow it free, connect a tow rope to one of the towing hooks (see illustration).

Always pull the vehicle with the cable pointing directly forward or directly rearward of the vehicle. **Never pull on the hook at an angle.**

STARTING THE VEHICLE IF IT HAS A FLAT BATTERY

Push Starting

No attempt should be made to start the vehicle by pushing, rolling or towing, as this may cause damage to the catalytic converter.

Attempting to start an automatic vehicle by the above methods may also cause damage to the transaxle.

Jump Starting with booster battery

Because the gases given off by the battery are explosive, sparks and naked flame should be kept away from it. Battery fluid is a corrosive sulphuric acid solution which can cause severe burns to the skin, clothing or painted surfaces. If battery fluid should be splashed on the skin etc. immediately flush the contaminated area with water.

The use of jumper leads and a booster battery to start an engine can be dangerous if not carried out correctly.

Always follow the instructions given below:-

1. Ensure that the battery of the vehicle to be used for jump starting is 12 volt and negatively grounded.
2. Position the two cars so that their batteries are as close together as possible. Pull the parking brake on and have the gear lever in neutral on manual transaxles or "park" on automatic transaxles. Switch off all unnecessary electrical equipment (lights, heater etc.) and ensure vehicles are not touching.
3. Remove vent caps from both batteries and place damp cloth over open filler holes to reduce risk of spark induced explosion.

NOTE: Maintenance free batteries do not have removable vent caps.

4. Run the jumper cable from the positive (+) terminal of the booster battery to the positive terminal of the discharged (flat) battery. Run the other cable from the negative (−) terminal of the booster battery to a suitable earth on the engine of the vehicle with the flat battery (such as engine sling).

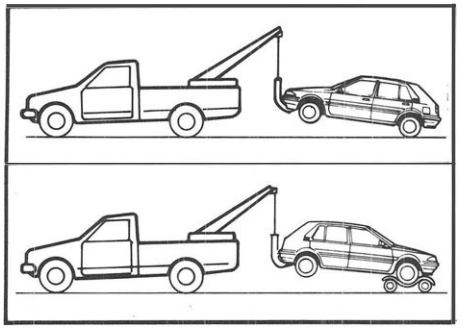
CAUTION: To avoid personal injury and damage to the electrical system always connect jumper leads positive to positive; negative to negative, (red to red; black to black) (+ to +; − to engine earth).

5. Run the engine being used for starting at a steady 2 000 rpm or so and start the engine with the flat battery in the usual manner.

NOTE: If battery is completely discharged, allow engine of boost vehicle to run for several minutes before attempting to start engine with flat battery.

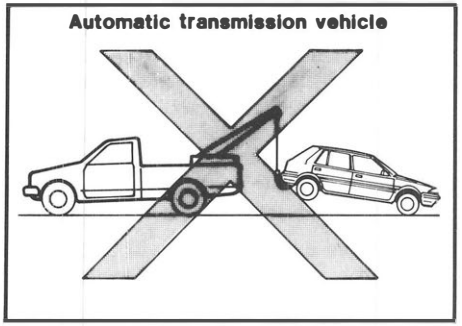
6. Once the engine has been started, leave the jumper cables connected and allow both engines to run for a few minutes before carefully disconnecting the jumper cables in the reverse order of connection. Remove damp cloths and replace filler caps.

TOW TRUCK TOWING



It is recommended that the vehicle be towed with the driving (front) wheels off the ground.

This can be achieved either with the front raised or with the rear raised and a dolly under the front wheels.



Never tow an automatic transaxle model with rear wheels raised and front wheels on the ground as this can cause serious damage to the transaxle.

If necessary, it is permissible to tow a manual transaxle model with rear wheels raised and front wheels on the ground, provided the following requirements are strictly adhered to.

- Make sure the transaxle, steering system and power train are in good order. If any unit is damaged, a dolly must be used.
- Turn the ignition key to the "OFF" position and secure the steering wheel in a straight-ahead position with a rope or similar device. Never place the ignition key in the "LOCK" position. This will result in damage to the steering lock mechanism.

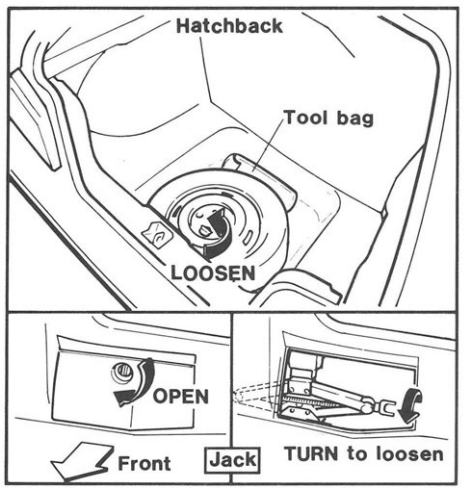
  Move the gearshift lever to the neutral ("N" position).
- Do not exceed 50 kmh or travel further than 65 km.

TOWING WITH FOUR WHEELS ON THE GROUND (manual transaxle only)

If you have to tow your vehicle with four wheels on the ground, observe the following restrictions.

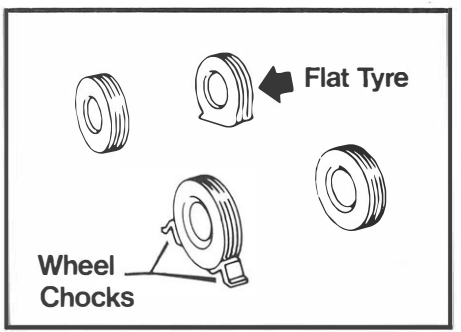
- Speed: below 50 kph
- Distance: less than 65 km.

CHANGING A WHEEL



The spare wheel is located under the boot or hatch floor and the jack handle clips onto the underside of the floor. On Sedan models, the jack is located adjacent to the spare wheel. On Hatchback models, the jack is located in a compartment at the rear of the load area.

A spanner for the wheel nuts is included in the tool bag located beside the spare tyre.

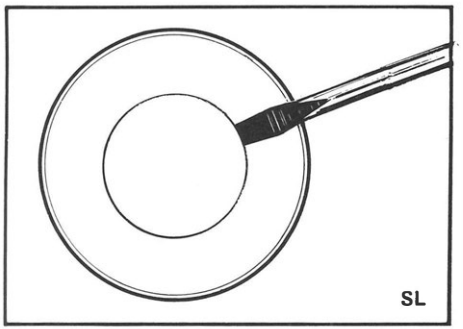


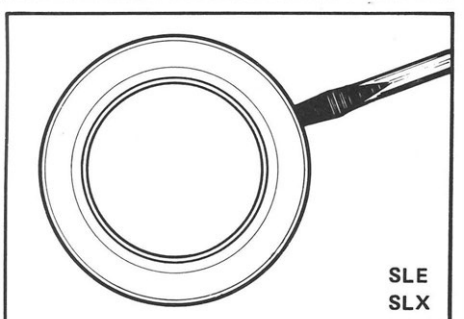
Park on a level surface and set the parking brake. Put the manual transaxle in reverse (Automatic transaxle in P).

Switch on hazard flasher.

Chock the wheel diagonally opposite the flat tyre.

- **Never get under the vehicle while it is supported only by the jack; use a vehicle support stand.**
- **Do not start or run engine while vehicle is on the jack.**
- **Do not allow passengers to stay in the vehicle while it is on the jack.**

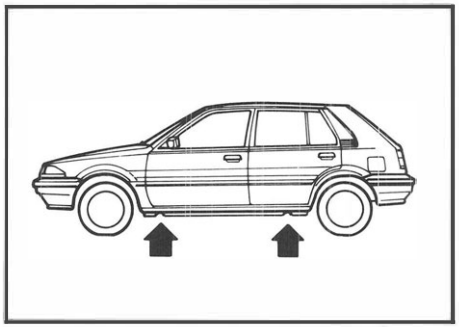




Hubcaps

Use the flattened end of the wheel nut spanner to prise off the hubcap as shown.

The tyres fitted to your car may be marked with an arrow on the tyre wall. This indicates that they are UNIDIRECTIONAL — designed for fitment to a particular side of the car.
The arrow shows the direction that the tyre is designed to rotate when the car is moving forward. Tyres on the left side of the car show the arrow pointing anti-clockwise; tyres on the right side show the arrow pointing clockwise.
A tyre may be fitted to the ''wrong'' side when changing a flat tyre. However, to reduce noise this should be rectified when convenient.



Loosen each wheel nut about ½ to ¾ of a turn by turning it anti-clockwise.

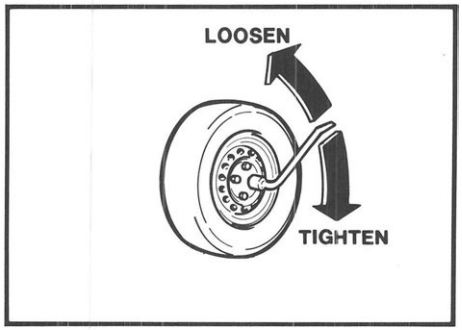
Place the jack directly under the jack up point nearest the wheel to be changed.

Raise the vehicle until the wheel is clear of ground, remove nuts and change the wheel.

Refit the nuts ensuring that the tapered ends are against the wheel.

Tighten the nuts alternately until they are finger tight, making sure that the tapers on the nuts engage correctly in the tapered seats on the wheel.

Tighten each nut a further ¼ turn using the spanner.



Lower the vehicle until the wheel rests firmly on the ground.

Fully tighten the nuts in the order shown — specified torque: 78 to 98 Nm (58 to 72 ft lb).

Remove the chocks and jack.

Restow the jack, tool bag and changed wheel in their proper locations.

1. Move the vehicle safely off the road, apply the parking brake and move the gearshift to neutral (automatic transaxle to "P").

   Do not stop the engine.

2. Turn off the air conditioner (if fitted), move the heater control to "HOT" and the fan control to "4" and open the windows of the vehicle.
3. While the vehicle is idling, open the bonnet and visually check the following

   (i) if the cooling fan (in front of the radiator) is operating

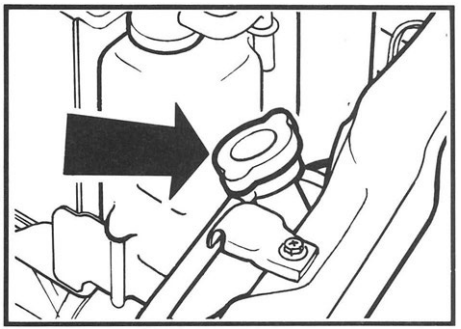
   (ii) if there are any obvious leakages from the radiator or hoses.

CAUTION: Do not touch the engine or cooling system components.

4. After it has been idling for about 2 minutes, turn the engine off and check whether the water pump drive belt is loose, damaged or missing.

   Check cooling system hoses for damage and leaks.

Exercise extreme care as the hoses and fittings will be hot.



CAUTION: Do not remove the radiator cap while the engine is still hot. Serious injury can be caused by pressurised water and/or steam which may be released under these conditions.

If any damage or substantial leak is apparent, have it repaired immediately. Do not drive the vehicle.

If no leak or damage is evident, wait until the engine has completely cooled down then **carefully** remove the radiator cap.

If possible drape a piece of rag over the cap while removing it.

If no coolant is visible in the radiator an addition should be made.

The specified coolant mixture should be used (see page 4-4).

If water only is available and the system must be topped up, it should be drained and refilled with the correct coolant mixture at the earliest opportunity.

It is important, when refilling a drained or partially drained system, to avoid the possibility of air pockets being formed within the engine. Closely follow the procedure detailed in the Service Manual or have the work done by a Holden dealer.

Replace the radiator cap, making sure it is seated properly and tightened fully.

Top up the coolant reservoir bottle if necessary.

Have your vehicle checked at the nearest Holden dealer.

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INTRODUCTION

This section of the manual describes the simple checks that you should carry out, or have carried out, on a regular and frequent basis and contains information on how best to maintain the appearance and condition of your car.

Instructions are also included on how to perform **some** maintenance and repair operations but these are restricted to those tasks considered relatively easy for an owner to perform. If you require further information not contained herein, a factory Service Manual is available from your Holden dealer.

You should be aware that incomplete or improper servicing may result in operating difficulties or excessive emissions, and could affect your warranty coverage. **If in doubt about any servicing, have it done by your Holden dealer.**

PRECAUTIONS

When performing any inspection or maintenance work on your vehicle, always take care to prevent serious accidental injury to yourself or damage to the vehicle. The following are general precautions which should be closely observed.

- **Park the vehicle on a level surface, apply the parking brake securely and block the wheels to prevent the vehicle from moving. Move the transaxle control lever to neutral ("N").**
- **Do not work under the engine hood while it is hot. Always turn off the engine and wait until it cools down.**
- **Be sure to turn the ignition key to the "OFF" or "LOCK" position.**

  When the ignition key is in the "ON" or "ACC" position, the cooling fan may start to operate suddenly even when the engine is not running.
- **If you must work with the engine running, keep your hands, clothing, hair and tools away from moving fans and drive belts.**
- **It is advisable to remove necktie and any jewelery, such as rings, watch, etc. before working on your vehicle.**
- **If you must run the engine in an enclosed space such as a garage, be sure there is proper ventilation for exhaust gases.**
- **Never get under the vehicle while it is supported only by a jack. If it is necessary to work under the vehicle, support it with safety stands.**
- **Keep smoking materials, flame and sparks away from fuel and battery.**
- **Never connect or disconnect either the battery or any transistorized component connector while the ignition key is on.**
- **The fuel filter or fuel lines should be serviced by a Holden dealer because the fuel lines are under high pressure even when the engine is off.**
- **Failure to follow these or other common sense guidelines may lead to serious injury or vehicle damage.**

REGULAR CHECKS

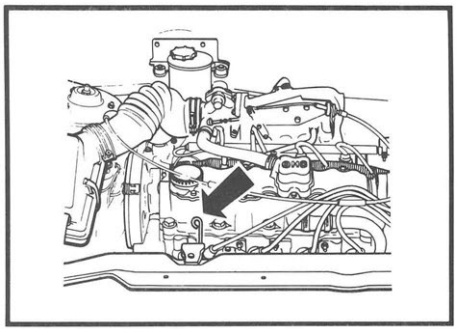
The following items should be checked at least whenever you refuel.

— Engine oil level
— Engine coolant level
— Brake fluid level
— Windscreen washer fluid level
— Tyre inflation pressures
— Battery electrolyte level.

The following further items should be checked on a regular but less frequent basis.

— Automatic transaxle oil level
— Power steering oil level
— Brake pedal travel
— Park brake travel
— Steering freeplay
— Clutch pedal freeplay
— Condition of drive belts
— Wiper blade condition
— Hood lock operation

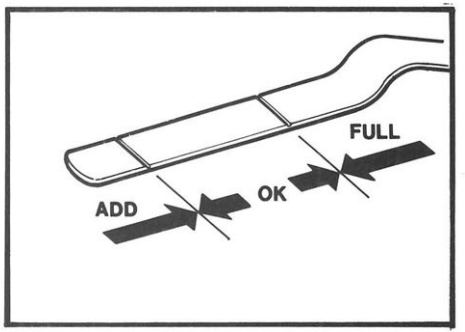
ENGINE OIL



Checking engine oil level

To check the level accurately the engine should have been stopped for at least five minutes.

- Park the car on a level surface.
- Remove the dipstick and wipe it clean.
- Reinsert the dipstick all the way into the tube for an accurate reading.
- Remove the dipstick and check the oil level. It should be between the two marks.
- After taking the reading, replace the dipstick in its tube.

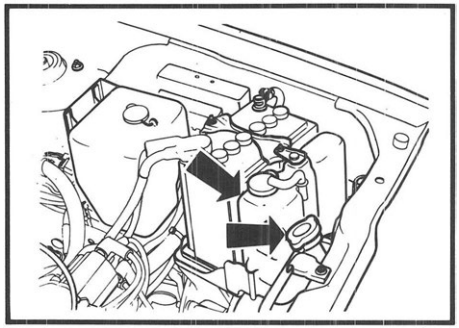


If the dipstick shows the oil level below the lower mark, add sufficient oil into the oil filler located on the cam cover to raise the level to the upper mark. Do not overfill.

Use only recommended grade of engine oil as specified on page 6-6.

Oil Consumption

- It is normal to add some oil between oil maintenance intervals.
- Oil consumption may be higher during the running in period or during periods of sustained high speed operation.



Checking coolant level

Check the coolant level in the reservoir tank when the engine is cold. If the coolant level is below "MIN", add coolant to the "MAX" level. If the reservoir tank is empty, check the coolant level in the radiator **when the engine is cold.** If there is insufficient coolant in the radiator, fill the radiator with coolant up to the filler opening and also add it to the reservoir tank up to the "MAX" level.

If the cooling system frequently requires coolant, have it checked by your Holden dealer.

When topping up, use a mixture of 30% Holden HN 1897 spec. inhibitor and 70% water. This can be purchased as part number M39288 (1 litre) or M39338 (4 litres). Note the caution under "Coolant Formula and Anti-Freeze Protection".

COOLANT FORMULA AND ANTI-FREEZE PROTECTION

During manufacture, the cooling system of your Astra was filled with a solution of 30% Holden HN 1897 spec. inhibitor and 70% water. This coolant has corrosion inhibiting, anti-freeze and anti-boil properties.

In the concentration stated above, it provides anti-freeze protection down to −15°C. Greater anti-freeze protection can be achieved by increasing the concentration in accordance with the table below.

Minimum outside temperature	Holden's HN 1897 Specification	Soft water
−15°C	30%	70%
−25°C	40%	60%
−35°C	50%	50%

Note: 30% is the minimum concentration which should be used.

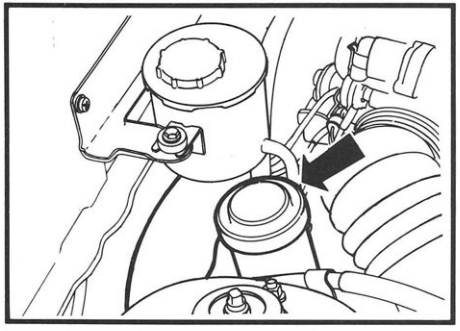
It is important, when refilling a drained or partially drained system, to avoid the possibility of air pockets being formed within the engine. Closely follow the procedure detailed in the Service Manual or have the work done by a Holden dealer.

CAUTIONS

Because of the high aluminium alloy content of the engine, coupled with the wide variations of water alkalinity throughout Australia, it is recommended that in areas where water alkalinity is a problem, demineralised water be used in the correct proportions with the coolant additive listed above.

When topping up or filling a partially drained system, do not mix different coolant additives. If in doubt as to what coolant may be in your vehicle, take it to your Holden dealer and have the system fully flushed and refilled with the correct solution of HN 1897 and water.

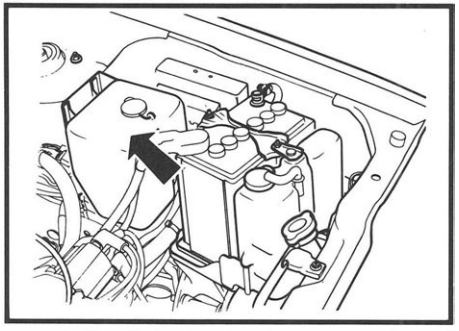
BRAKE FLUID LEVEL



Fluid level should be maintained between the marks on the reservoir. A gradual drop in the level will occur as a consequence of normal brake pad wear. If the fluid level falls considerably below the "minimum" level or requires frequent topping up, the brake system should be thoroughly checked by your authorised Holden Dealer.

Use only new brake fluid of a specification as detailed on page 6-6. Use of old, used or inferior brake fluid may endanger the performance of the brake system,

WINDSCREEN WASHER FLUID LEVEL



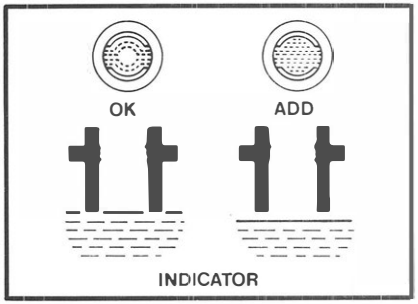
Check the fluid level in the reservoir and add fluid if necessary. The use of a good quality windscreen washer detergent additive is recommended for good wiper performance. The use of ordinary household detergent is not recommended. The hatchback rear window uses the same reservoir as is used for the front windscreen.

TYRE INFLATION PRESSURES

Check tyre inflation pressures frequently and maintain them at the pressures shown on the tyre placard affixed to the glove box lid of your car, or as detailed on page 6-3.

Note that the specified pressures are Cold tyre pressures. Air pressure in tyres increases as the tyre heats up, such as would happen after a sustained highway journey. Incorrect tyre pressure can adversely affect tyre life, riding comfort and load carrying capacity.

BATTERY ELECTROLYTE LEVEL



Check the fluid level in each filler. If necessary add only distilled water to bring the level to the indicator in each filler opening. Do not overfill.

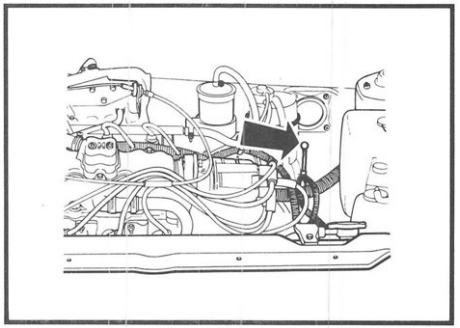
- Keep the battery surface clean and dry. Any corrosion should be washed off with a solution of baking soda and water.
- Make certain the terminal connections are clear and securely tightened.
- If the vehicle is not to be used for 30 days or longer, disconnect the "–" negative terminal cable to prevent discharge.

Do not expose the battery to flames or electrical sparks. Hydrogen gas generated by battery action is explosive. Do not allow battery fluid to contact your skin, eyes, fabric, or painted surfaces. After touching a battery cap, do not touch or rub your eyes. Thoroughly wash your hands. If the acid contacts your eyes, skin or clothing, immediately flush with water for at least 15 minutes and seek medical attention.

JUMP STARTING

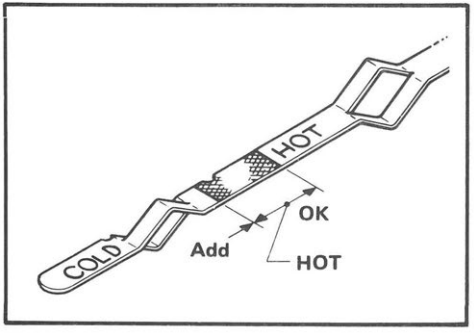
If jump starting is necessary, see the "In case of emergency" section. If the engine does not start by jump starting, the battery may have to be replaced. Contact a Holden dealer.

AUTOMATIC TRANSAXLE FLUID LEVEL (where fitted)



The fluid level should be checked using the "HOT" range on the dipstick at fluid temperatures of 65°C (150°F) after the vehicle has been driven approximately 5 minutes in urban areas after the engine is warmed up. But it can be checked at fluid temperatures of 30°C (86°F) using the "COLD" range on the dipstick for reference after the engine is warmed up and before driving. However, the fluid level must be rechecked using the "HOT" range.

1. Park the vehicle on a level surface and set the parking brake.
2. Start the engine and then move the selector lever through each gear range, ending in "P".
3. Check the fluid level with the engine idling.



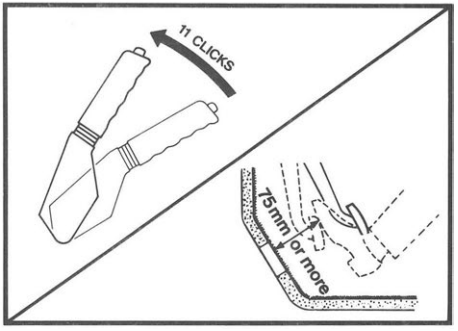
If the vehicle has been driven for a long time at high speeds, or in city traffic in hot weather, or if it is being used to pull a trailer, the accurate fluid level cannot be read. You should wait until the fluid has cooled down (about 30 minutes).

4. Remove the dipstick and wipe it clean with lint-free paper.
5. Re-insert the dipstick into the charging pipe as far as it will go.
6. Remove the dipstick and note the reading.

Do not overfill.

Use only DEXRON® type fluid.

BRAKE PEDAL AND PARK BRAKE LEVER TRAVEL



Brake pedal travel

When the brake pedal is fully depressed, the distance between the upper surface of the pedal and the carpet should be as shown in the illustration.

If this distance approaches or is below the prescribed limit value, have the brake checked by your Holden dealer.

Parking brake

Starting from a completely released position, apply the parking brake slowly and firmly with a pulling force of 196 N (44 lb), counting the clicks. If the number of clicks exceeds 11, have the parking brake adjusted by your Holden dealer.

STEERING AND CLUTCH FREEPLAY

Steering freeplay

With the steering wheel in the straight ahead position, measure the amount of steering wheel play. With the front wheels in the straight ahead position and while watching them, turn the steering wheel from side to side within the range of movement allowed without moving the front wheels. The amount of movement of the steering wheel under this condition, is the steering wheel play.

If the play exceeds 8 mm (5/16 in.) have the steering adjusted by your Holden dealer.

Clutch pedal freeplay

The clutch pedal should not encounter resistance during the first 12 mm to 17 mm of its stroke. Resistance should then be felt by your foot riding on the clutch pedal. If the pedal stroke is out of adjustment, have the clutch adjusted by your Holden dealer.

DRIVE BELT AND WIPER BLADE CONDITION

Drive belt condition

Ensure engine is switched off and that manual transaxle is in "Neutral", (Automatic Transaxle in "P" position). Firmly apply the handbrake.

Visually inspect each drive belt for signs of unusual wear, cuts, cracking fraying or looseness. If any belt is loose or in poor condition, have it adjusted or replaced by your Holden dealer.

Wiper blade condition

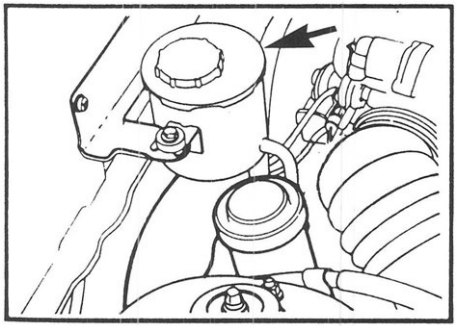
Check the wiper blades for operation and cleanliness. If the wiper blades do not wipe the windscreen clean after the blades and windscreen have been wiped with a cloth, renew the blades.

HOOD LOCK OPERATION

Check the hood to see if it is closed and locked properly. Lubricate the hood lock periodically.

Wipe off surface dirt from all functioning parts and smear a little grease on them. Ensure that the lock and release mechanisms work smoothly by operating several times.

POWER STEERING FLUID LEVEL



Check the fluid level in reservoir by observing the dipstick when the fluid is cold. Add fluid as necessary to bring the level into proper range on dipstick.

SIMPLE MAINTENANCE AND REPAIR

The following section provides information regarding some simple maintenance and repair operations. Before proceeding, you should read the introduction and precautions sections on page 4-2.

CHANGING ENGINE OIL

1. Warm up the engine until it reaches operating temperature, and then turn it off.
2. Place a large drain pan under the drain plug.
3. Remove the oil filler cap.
4. Remove the drain plug with a wrench and completely drain the oil.

   If oil filter is to be changed, remove and replace it at this time. See "Changing oil filter".

Be careful not to burn yourself, as the engine oil is hot.

5. Clean and re-install the drain plug and washer. Securely tighten the drain plug with a wrench.

   Drain plug tightening torque:
   29 to 39 N·m
   (3.0 to 4.0 kg-m, 22 to 29 ft-lb)

   Do not use excessive force.
6. Refill engine with recommended oil and install the cap securely.

   See the "Technical Information" section for refill capacity.
7. Start the engine.

   Check for leakage around the drain plug. Correct as required.
8. Turn the engine off and wait several minutes. Check the oil level with the dipstick. Add engine oil if necessary.

CHANGING OIL FILTER

1. Turn the engine off.
2. Loosen the oil filter with an oil filter wrench. Remove the oil filter by turning it by hand.

Be careful not to burn yourself, as the engine oil may be hot.

3. Wipe the engine oil filter mounting surface with a clean rag.

   Be sure to remove any old rubber gasket remaining on the mounting surface of the engine.
4. Coat the rubber gasket on the new filter with engine oil.
5. Screw in the oil filter until a slight resistance is felt, then tighten additionally more than 2/3 turn.

Note: If you are changing the oil in conjunction with the filter, make sure the engine is filled with oil before proceeding.

6. Start the engine and check for leakage around the oil filter. Correct as required.
7. Turn the engine off and wait several minutes. Check the oil level. Add engine oil if necessary.

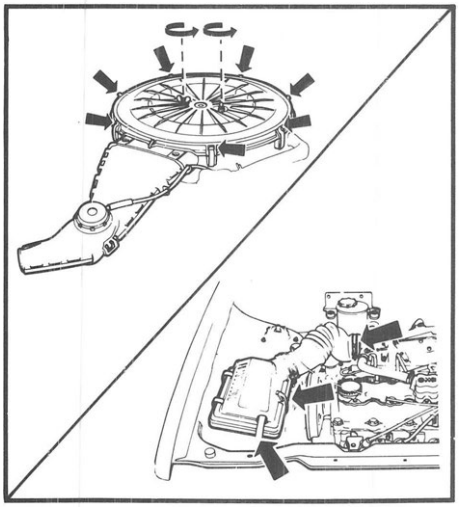
CHANGING SPARK PLUGS

- **Be sure the ignition key is "OFF".**
- **When disconnecting, always hold the boots — not the cables. Mark all cables to identify their original location.**
- **When installing a plug, turn it in two or three turns by hand and then tighten with a spark plug wrench. Be careful not to overtighten.**

  Spark plug tightening torque:
  20 to 29 N-m
  (2.0 to 3.0 kg-m, 14 to 22 ft-lb)

  For spark plug specification, see the "Technical Information" section.

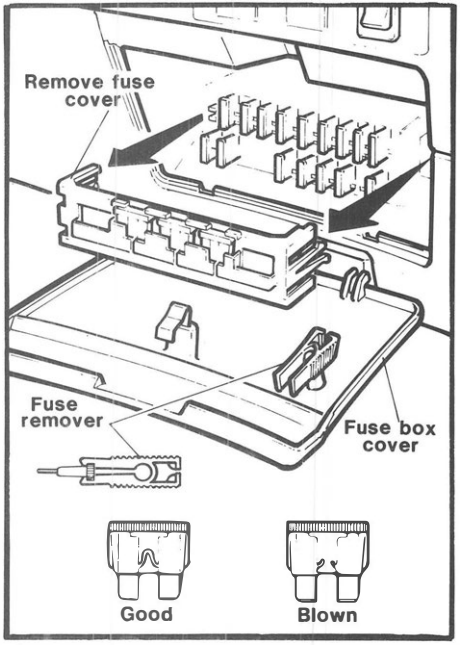
CHANGING AIR FILTER



The filter element paper is specially treated. It should not be cleaned and reused but should be replaced when necessary. When replacing the filter element, wipe the inside of the air cleaner with a damp cloth to remove loose dust.

Operation under dusty conditions may require more frequent element changes.

CHANGING FUSES



The fuse box is located under the right side of the instrument panel. The fuses are the blade type with their value marked on the plastic portion. If a fuse has to be replaced, replace it with one of the correct value as indicated on the fuse box cover and only after ascertaining the cause of the fuse blowing.

LIGHT BULB REPLACEMENT

HEADLIGHT

The headlight is a semi-sealed beam type which uses a replaceable headlight (halogen) bulb. A bulb can be replaced from inside the engine compartment without removing the headlight assembly.

High pressure halogen gas is sealed inside the halogen bulb. The bulb may break if the glass envelope is scratched or the bulb is dropped.

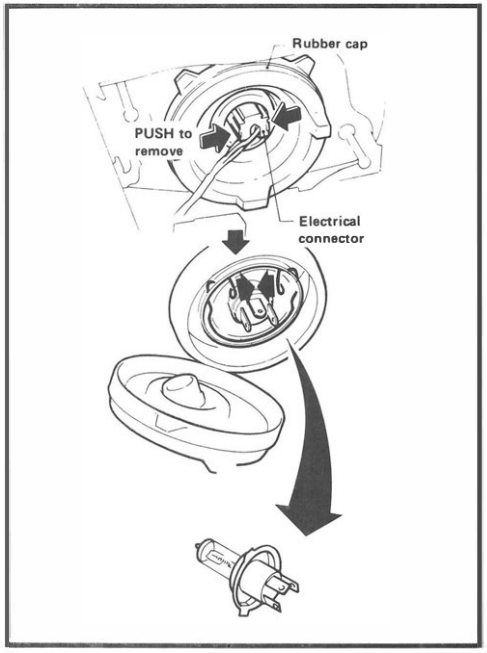
Hold the plastic base when handling the bulb. Never touch the glass envelope.

Removing the headlight bulb

1. Disconnect the battery negative cable.
2. Disconnect the electrical connector from the rear end of the bulb.
3. Pull the rubber cap to remove it.
4. Squeeze retaining wire pin connector together to free headlight bulb.
5. Remove the headlight bulb. Do not shake or rotate the bulb when removing it.

Replacing the headlight bulb

Install the new bulb in the reverse order of removal.



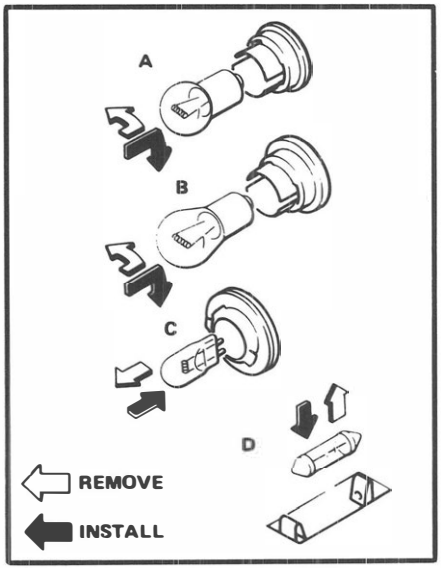
- **Use the same number and wattage as originally installed:**

  Refer page 6-5 for wattage specifications.

- **Aiming is not necessary after replacing the bulb. When aiming adjustment is necessary, contact your Holden dealer.**

- **Do not leave the bulb out of the headlight reflector for a long period of time as dust, moisture, and smoke may enter the headlight body and affect the performance of the headlight.**

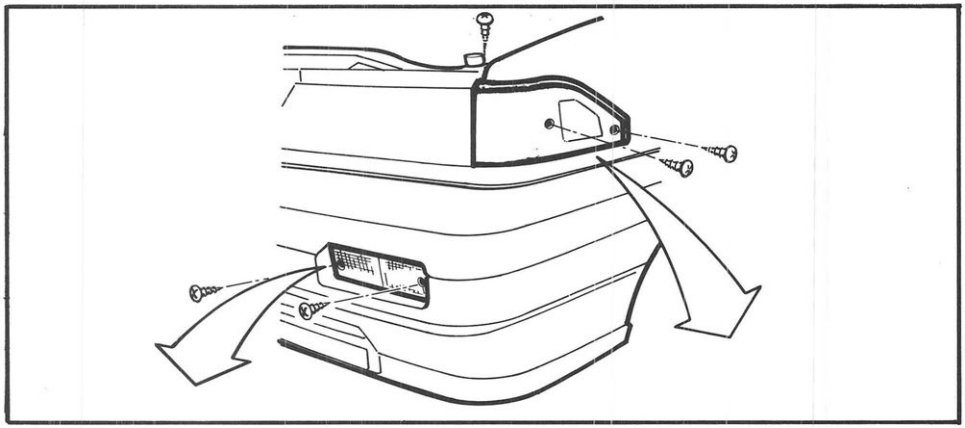
FRONT TURN SIGNAL



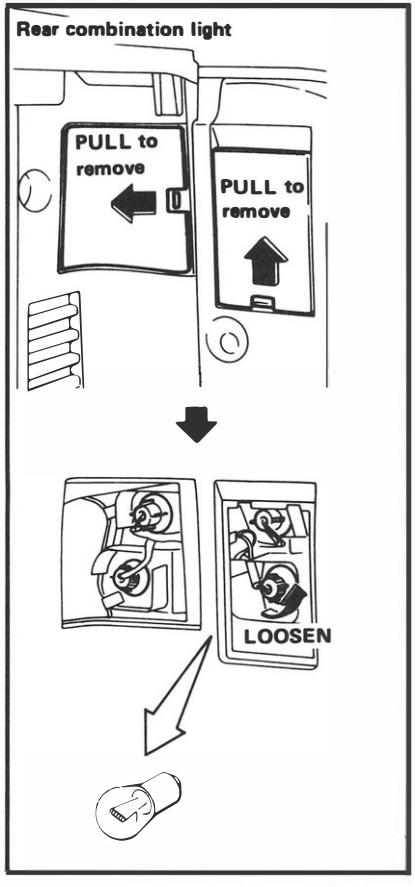
Replacement procedures

All other lights are either type A, B, C or D. When replacing a bulb, first remove the lens and/or cover.

SIDE REPEATER LIGHT AND PARK LAMP

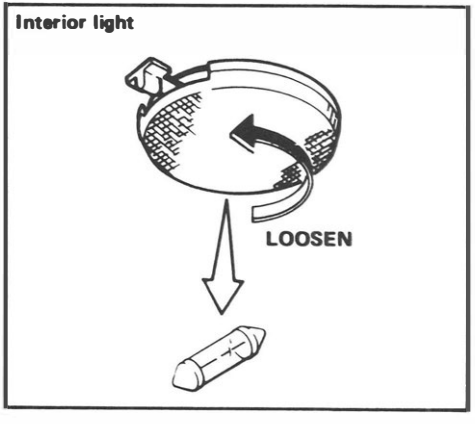


REAR COMBINATION LAMP

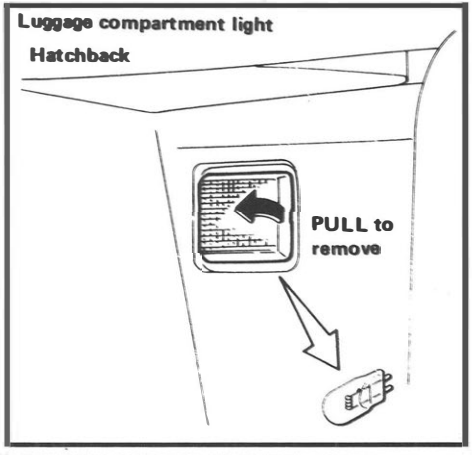


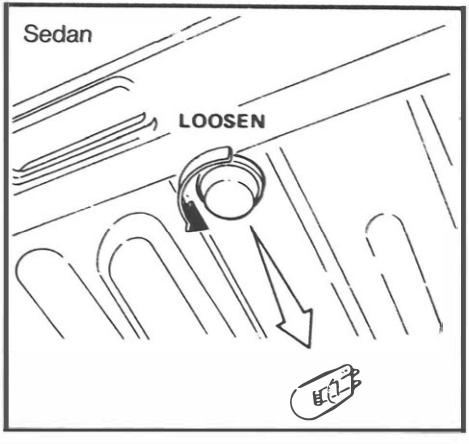
LICENCE PLATE LAMP

The licence plate lamp is located in front, above the licence plate and is attached by 2 screws at either end.



LOAD AREA LIGHT





AIR CONDITIONER CARE AND MAINTENANCE

Care

In winter it is advisable to operate the air conditioner compressor for about ten minutes at least once a month.

When washing the car, ensure that the condenser and radiator air passages are cleaned, particularly of dead insects. Fitment of a screen wire guard will reduce air conditioner efficiency due to restriction of air flow.

Maintenance

NOTE: It is normal for a small amount of water to drain out under the car during air conditioner operation. This is the condensed moisture which has been removed from the air inside the car.

Before the start of summer when you will begin to use the air conditioner regularly, you should have your Holden dealer check the system to ensure its correct and efficient operation.

Refrigerant level:

The airconditioning system is charged with freon 12 gas. The correct amount in the system may be checked in the sight glass on the top of the receiver drier tank mounted behind the front bumper bar.

When the air conditioner is first switched on bubbles will be visible in the sight glass for a short period.

With the engine running at approximately 1200 rpm, the bubbles should disappear after a few seconds. If bubbles are still visible after this time, the air conditioning system should be recharged with refrigerant gas.

Compressor belt adjustment:

The belt that drives the air conditioning compressor should be checked for wear and tension. It must be borne in mind that over-tensioning of the belt is just as injurious as under-tensioning for proper functioning of the system.

Your new vehicle's paintwork finish is the result of the latest technology in protective and decorative surface coatings combined with the best equipment and techniques employed to apply them.

Whether a glossy 'solid' colour or the 'clear' over 'basecoat' metallic finish, the way you clean and care for the paintwork generally is most important in ensuring the brightness of the finish remains as you would like it.

The paintwork of the vehicle will provide a high degree of protection against the weather, but normal wear and deterioration will take place when it is exposed to the elements, especially for prolonged periods of time. You should endeavour to protect or garage your vehicle whenever possible.

Substances Potentially Harmful to Automobile Paintwork

(a) Road 'bloom' — a whitening or dulling effect of prolonged build up of exhaust pipe emissions, oils, dirt and other airborne pollutants combined with the normal weathering of paint.

(b) Tree saps, bird droppings, salt water spray and other 'natural' environmental hazards seen as deposits that when removed too late can leave an etching or 'scar' as outlined by the shape of the dropping on the paintwork.

(c) Tar spray, and industrial type fallout which can be of many potentially harmful types, may 'pit' the paint by chemically burning or bonding. In some cases it may cause spotting by discolouring or etching into the paint film.

Normal Cleaning

WARNING: WASHING — Ensure that the vehicle is cool and **do not** wash paintwork while the car is exposed to strong, hot direct sunlight.

With cold running water and starting from the roof, hose the vehicle all over from top to bottom. Do not use sponge or cloth at this stage. This will remove grit and other loosely adhering substances which could otherwise scratch the paint in the operations to follow.

To a normal household bucket filled with lukewarm water, add **no more** than two capfuls (approx. 15 ml) of an automotive type liquid detergent.

Soak a clean sponge in the bucket then apply liberally by wiping over the roof area of the vehicle and all the exterior glass.

Do not allow to dry out. Rinse off immediately with cold running water from the hose.

Repeat this process all over the remainder of the vehicle leaving the wheels until last. Do only a section at a time and do not forget to rinse off the 'soapy' section before it dries.

After a final cold water rinse all over, the vehicle should be dried with a good quality chamois leather, paying particular attention to all glass and chromed trim.

Polishing/Stain Removal

Your original glossy baked enamel paintwork would not normally require a polish to improve its shine but depending on the degree of exposure the use of a good quality polish may assist in the protection against those elements potentially harmful to automotive paintwork described earlier.

As an example, the use of DUCO* CLEANER and POLISH or equivalent every six months or so will minimise the affect of road bloom described earlier and may aid in the removal of some other 'natural' contaminants.

It is most important that any 'Fall Out', including tree saps and bird droppings, be removed from the paintwork at the earliest opportunity. Prolonged contact may lead to permanent marring. For all types of stain removal FIRST use a warm water/detergent mixture as for washing, and rinse off with clean, running water. Repeat if necessary and dry. Many 'natural' types of fall out are water soluble and will be removed with this simple method.

Tar and other bituminous type stains may be removed with cleaners designed specifically for this purpose, or use kerosine or white spirit. Use carefully and strictly as directed. If any softening of the paintwork occurs stop immediately.

The consistent use of rubbing type compounds should be avoided as their purpose is to remove marring and embedded soil from paintwork and to this end will also remove a fair degree of the paint surface. It is recommended that rubbing compounds such as DULUX* Burnishing Cream be used only when the paint surface has lost its smoothness from an accumulation of grit and other soil which cannot be removed by the polish alone.

In this case use DULUX Burnishing Cream followed by the DUCO CLEANER and POLISH or equivalent. Use both as directed on the label.

Interior Trim

Wipe interior trim clean with a clean damp or wet cloth or use a recommended cleaner or mild soap solution then dry with a soft cloth.

CAUTION: Make sure the cleaner selected is not harmful to the material.

Cloth upholstery and carpet

Clean with a vacuum cleaner or clothes brush.

Stains should be removed with a mild soap solution or a spot remover. (Test on an inconspicuous part of the trim to check for colour change).

Wipe with a damp clean cloth from outside of stain toward centre.

* Registered Trademark of Dulux Australia Ltd.

Wheels and Underbody

When a vehicle has been used under conditions exposing it to excessive mud and/or corrosive materials such as boat launching, driving along beaches or on tracks through fertilized paddocks, etc. — it must be thoroughly flushed with fresh water to remove any deposited mud or corrosive material.

Vacuum cleaning

Frequent light vacuum cleaning, particularly in areas of heavy use, will help to preserve the appearance of the material by reducing the possibility of dirt being ground in.

Stain removal

With most stains, speed is essential. The majority of stains will vanish if treated immediately.

It is a good idea to keep the necessary materials for stain removal in one place. A suitable cleaning kit would include such items as: An approved non-alkaline wool detergent, white vinegar, household dry cleaning fluids, including methylated spirits, a small piece of sponge, clean absorbent cloths and paper towelling or white tissues.

Procedure for removing stains

1. Firstly, remove the source of the stain using one of the following methods.
2. (a) Blot up liquids by applying pressure with paper towels, tissues or dry absorbent cloths.

   (b) Scoop up solids with a knife or spoon.

   (c) Brush burn or scorch marks from the surface.

   Take a small piece of sponge or clean cloth and apply the first treatment from the STAIN REMOVAL CHART using a small amount of the cleaning agent at a time. With a blotting or dabbing motion, work inwards from the edge of the stain to prevent it from spreading.

   Do not overwet: excessive soaking may cause rings to form on the surface, spreading the stain even further.

   Do not rub; rubbing will tend to spread the stain over a larger area.
3. If the cleaning agent has removed the stain, carry out steps 5 to 7.
4. If the stain is still apparent after the first treatment, remove excess moisture from the treated area by applying pressure with paper towels, tissues, or absorbent cloths. From the additional treatments on the treatment chart select and apply the next treatment following steps 2 and 3.

   Continue with recommended treatments, blotting up moisture between each new cleaning agent until stain is removed.
5. Once the cleaning agent has removed the stain, blot up excess moisture from treated area by applying pressure with paper towels, tissues or dry absorbent cloths.
6. Rinse by applying clear tepid water using a small piece of sponge or clean cloth, again working inwards from the edge of the affected area. DO NOT RUB.
7. Remove excess moisture as outlined in step 5.

UPHOLSTERY CLEANING AGENT CHART

TREATMENT	CLEANING AGENT AND INSTRUCTIONS
1.	Solution of one teaspoon of approved wool detergent (e.g. "Softly") and one litre of warm water.
2.	Dry cleaning fluid or lighter fuel. CAUTION: Use only in a well ventilated area and keep naked flame and lighted cigarettes away. **Do not use near vinyl parts.**
3.	Methylated spirits. CAUTION: As for 2 above.
4.	Hydrogen peroxide (20VOL). Dilute 10 to 1 with cold water. CAUTION: Do not use on dark or patterned fabric.
5.	Dye stripper. Dilute 50 to 1 with cold water. CAUTION: As for 4 above.
6.	Chewing gum remover (Freezing agent).
7.	Nail polish remover. **CAUTION: Do not use near vinyl parts.**
8.	Clean, warm, (NOT HOT) water.
9.	Cold water.
10.	Weak solution of white vinegar or lemon juice with cold water.
11.	Absorbent powder (e.g. salt or talc) sprinkle on spillage, leave overnight and vacuum off.

UPHOLSTERY STAIN REMOVAL CHART

CAUTION: Before attempting to treat stain, pre-test treatments on an inconspicuous part of the seat to check for colour change.

TYPE OF STAIN	Order of Treatment			TYPE OF STAIN	Order of Treatment		
	1st	2nd	3rd		1st	2nd	3rd
Beer	1	—	—	Ink — Ballpoint	4	1	—
Beetroot	1	—	—	Ink — Fountain Pen	8	1	—
Bleach	1	—	—	Lipstick	2	1	—
Blood	9	5	—	Metal Polish	2	1	—
Burn or Scorch Mark	4	—	—	Mildew	1	4	—
Butter	2	1	—	Milk	8	2	1
Chewing Gum	6	—	—	Mustard	1	—	—
Chocolate	1	—	—	Nail Polish	7	2	—
Cocoa	2	2	—	Oil	2	1	—
Coffee (Black or White)	2	9	1	Paint — Emulsion	2	9	1
Cooking Oils	2	9	1	Paint — Oil Base	2	1	—
Crayon	2	1	—	Rust	2	1	10
Cream	2	1	—	Salad Dressing	2	1	—
Excrement	1	—	—	Shoe Polish	2	1	—
Fruit Juice	8	—	—	Soft Drinks	8	1	4
Grass	3	1	—	Tar	2	1	—
Gravy	8	—	—	Tea (Black or White)	2	9	1
Grease	2	—	—	Urine	1	—	—
Ice Cream	1	1	—	Vomit	1	—	—
				Wine — Red	11	8	5
				Wine — White	1	—	—

PROTECTION AGAINST CORROSION

Most common factors contributing to vehicle corrosion:

1. The accumulation of moisture-retaining dirt and debris in body panel sections, cavities, and other parts.
2. Damage to paint and other protective coatings caused by gravel and stone chips or minor traffic accidents.

Environmental factors influence the rate of corrosion:

Moisture

The accumulation of sand, dirt, and water on the underside of the body will accelerate corrosion. Floor sections which have water under the carpet will not dry.

Relative humidity

Corrosion will be accelerated in areas of high relative humidity.

Temperature

A temperature increase will accelerate the rate of corrosion to those parts which are not well ventilated.

Air pollution

Industrial pollution, the presence of salt in the air in coastal areas, will accelerate the corrosion process.

To protect your vehicle from corrosion:

- Wash and wax your vehicle often to keep the vehicle clean.
- Always check for minor damage to the paint and repair it as soon as possible.
- Keep drain holes at the bottom of the doors and tailgate open to avoid water accumulation.
- Check the underbody and floor. If any sand, dirt, or salt is accumulated, wash it off with water as soon as possible.

RECOMMENDED MAINTENANCE

The table on the following pages lists the service maintenance required to ensure good engine performance, mechanical condition and safe operation of your new Astra.

This maintenance should be attended to at the specified intervals by your Holden dealer. The schedule has been established specifically for Australian operating conditions and represents the minimum maintenance schedule recommended by Holden.

As indicated in the table, vehicles operating in adverse conditions may require additional or more frequent servicing of some items.

If your vehicle exhibits malfunctions or if the idle adjustment is not correct it is recommended that you have the system checked by your Holden dealer.

EMISSION CONTROL SYSTEM

Your Holden is equipped with an emission control system which is designed and built to provide emission performance levels required by Australian Design Rules. In some States owners may be subject to penalties for any modifications made to the emission control system after delivery.

The system consists of:

1. A crankcase emission control system,
2. An exhaust emission control system utilizing a three-way catalytic converter,
3. An evaporative emission control system utilizing a carbon canister.

To maintain the correct operation of the emission control system, you should ensure the following

(a) that you use only unleaded fuel,

(b) that you operate your vehicle within the prescribed passenger and load limits.

(c) that you have your vehicle maintained in accordance with the Periodic Maintenance and Lubrication Schedule set out herein.

(d) that, in the event that the ECM fault warning light comes on, you have your vehicle attended to immediately by a Holden dealer.

RECOMMENDED PERIODIC MAINTENANCE AND LUBRICATION SCHEDULE

Item	MAINTENANCE ITEM Periodic maintenance should be performed at number of kilometres or months whichever comes first.		MAINTENANCE INTERVAL										
		Number of kilometres in thousands	1.5	5	15	25	35	45	55	65	75	85	95
		Number of months	1	3	9	15	21	27	33	39	45	51	57
	UNDERHOOD MAINTENANCE												
1	Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.			×	×	×	×	×	×	×	×	×	×
2	Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.			×	×	×	×	×	×	×	×	×	×
3	Check fluid levels, (i.e. brake and clutch master cylinders, battery, washer bottle, automatic transaxle, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.		×	×	×	×	×	×	×	×	×	×	×
4	If fitted with air conditioning, check refrigerant charge quantity.			×	×	×	×	×	×	×	×	×	×
5	Check condition and tension of external drive belts.		×		×		×		×		×		×
6	Inspect ignition wiring, distributor cap and rotor.				×		×		×		×		×
7	Check engine ventilation idle metering orifice for restriction						×				×		
8	Change engine oil.			×	×	×	×	×	×	×	×	×	×
9	Replace engine oil filter.			×	×	×	×	×	×	×	×	×	×
10	Change engine coolant						×				×		
11	Change brake fluid.					×			×			×	
12	Replace fuel filter.						×				×		
13	Replace air filter. ②						×				×		
14	Replace spark plugs.						×				×		
15	Check automatic temperature control air cleaner for correct operation (1.6 only).				×		×		×		×		×
16	Lubricate throttle linkage.				×		×		×		×		×
17	Replace camshaft drive belt.										×		

TERMINOLOGY
INSPECT: Visually observe and, where necessary, apply force to components to ascertain security.
CHECK: Make a physical measurement for comparison with a service specification (e.g. brake pad thickness, fluid level).

RECOMMENDED PERIODIC MAINTENANCE AND LUBRICATION SCHEDULE

Item	MAINTENANCE ITEM	MAINTENANCE INTERVAL										
	Periodic maintenance should be performed at number of kilometres or months whichever comes first. — Number of kilometres in thousands	1.5	5	15	25	35	45	55	65	75	85	95
	Number of months	1	3	9	15	21	27	33	39	45	51	57
	UNDER VEHICLE MAINTENANCE											
18	Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play. ①		×	×	×	×	×	×	×	×	×	×
19	Check exhaust for damage, leaks and security. ①		×	×	×	×	×	×	×	×	×	×
20	Check oil level in manual transaxle.	×	×	×	×	×	×	×	×	×	×	×
21	Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.		×	×	×	×	×	×	×	×	×	×
22	Inspect fuel system components for leaks, damage, deterioration and security. ①		×	×	×	×	×	×	×	×	×	×
23	Inspect for leaks from engine, transmission and steering system.		×	×	×	×	×	×	×	×	×	×
24	Check condition of tyres including spare. ①	×	×	×	×	×	×	×	×	×	×	×
	OUTSIDE AND INSIDE MAINTENANCE											
25	Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.		×	×	×	×	×	×	×	×	×	×
26	Check operation of instruments and controls (Inspect wiper blade condition).		×	×	×	×	×	×	×	×	×	×
27	Check operation of all lights.	×	×	×	×	×	×	×	×	×	×	×
28	Check operation of inhibitor switch.		×	×	×	×	×	×	×	×	×	×
29	Check stroke and operation of clutch, foot brake and park brake.		×	×	×	×	×	×	×	×	×	×
30	Lubricate locks, hinges and hood latch.		×	×	×	×	×	×	×	×	×	×

The numbers in circles alongside maintenance items indicates that, that item may require additional or more frequent service if driven continuously under the correspondingly numbered condition below:
①When driving along rough and/or muddy roads. ②When driving in dusty conditions.
In addition to the foregoing, vehicles used under conditions exposing them to excessive mud and/or corrosive materials — boat launching, driving along beaches, driving on tracks through fertilized paddocks, etc. — must be thoroughly flushed with fresh water to remove any deposited mud or corrosive material.

1500 Kilometre 1 Month Inspection and Adjustment

This vehicle has been thoroughly checked in accordance with the **1** month — **1,500** kilometre inspection and adjustment.

Dealer .....

Service Manager's Signature .....

Date ..... Odometer Reading .....

1500 Kilometre or 1 Month Inspection and Adjustment

HOLDEN WISE
QUALITY SERVICE & PARTS

This coupon should not be removed until the vehicle is presented for service.

Owner's Name Mr. Mrs. Miss .....

Address .....

Town & State ..... Postcode .....

Reg. No. ..... Model Name .....

V.I.N. ..... Eng. No. .....

Selling Dealer's Stamp & Signature .....

Date of Acquisition .....

This vehicle has been thoroughly checked in accordance with the schedule on the reverse side of this coupon.

Servicing Dealer .....

Town ..... State .....

Owner's Signature .....

PTO

This Inspection & Adjustment will be carried out without charge to the owner except for any lubricants used.

The Designated Services are not to be exceeded without the Owner's prior agreement to additional servicing charges.

1. ☐ Check fluid levels, (i.e. brake and clutch master cylinders, battery, washer bottle, automatic transaxle, power steering reservoir). Check engine oil. Check coolant level and inhibitor %, use tester. Top up as required.
2. ☐ Check condition and tension of external drive belts.
3. ☐ Check oil level in manual transaxle.
4. ☐ Check condition of tyres including spare.
5. ☐ Check operation of all lights.
6. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

5,000 km or 3 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

5,000 km or 3 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.1 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

PTO

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Change engine oil.
6. ☐ Replace engine oil filter.
7. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
8. ☐ Check exhaust for damage, leaks and security.
9. ☐ Check oil level in manual transaxle.
10. ☐ Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.
11. ☐ Inspect fuel system for leaks, damage, deterioration and security.
12. ☐ Inspect for leaks from engine, transmission and steering system.
13. ☐ Check condition of tyres including spare.
14. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
15. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
16. ☐ Check operation of all lights.
17. ☐ Check operation of inhibitor switch.
18. ☐ Check stroke and operation of clutch, foot brake and park brake.
19. ☐ Lubricate locks, hinges and hood latch.
20. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

15,000 km or 9 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

15,000 km or 9 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.3 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

PTO

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Change engine oil.
6. ☐ Replace engine oil filter.
7. ☐ Check condition and tension of external drive belts.
8. ☐ Inspect ignition wiring, distributor cap and rotor.
9. ☐ Check automatic temperature control air cleaner for correct operation (1.6 only).
10. ☐ Lubricate throttle linkage.
11. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
12. ☐ Check exhaust for damage, leaks and security.
13. ☐ Check oil levels in manual transaxle.
14. ☐ Check all brake pads for serviceability.
15. ☐ Inspect brake system for leaks, deterioration and loose, damaged or missing components.
16. ☐ Inspect fuel system for leaks, damage, deterioration and security.
17. ☐ Inspect for leaks from engine, transmission, and steering system.
18. ☐ Check condition of tyres including spare.
19. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
20. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
21. ☐ Check operation of all lights.
22. ☐ Check operation of inhibitor switch.
23. ☐ Check stroke and operation of clutch, foot brake and park brake.
24. ☐ Lubricate locks, hinges and hood latch.
25. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

25,000 km or 15 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

25,000 km or 15 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.3 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

PTO

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Change engine oil.
6. ☐ Replace engine oil filter.
7. ☐ Change brake fluid.
8. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
9. ☐ Check exhaust for damage, leaks and security.
10. ☐ Check oil level in manual transaxle.
11. ☐ Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.
12. ☐ Inspect fuel system for leaks, damage, deterioration and security.
13. ☐ Inspect for leaks from engine, transmission and steering system.
14. ☐ Check condition of tyres including spare.
15. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
16. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
17. ☐ Check operation of all lights.
18. ☐ Check operation of inhibitor switch.
19. ☐ Check stroke and operation of clutch, foot brake and park brake.
20. ☐ Lubricate locks, hinges and hood latch.
21. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

35,000 km or 21 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

35,000 km or 21 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.7 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

PTO

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Check condition and tension of external drive belts.
6. ☐ Inspect ignition wiring, distributor cap and rotor.
7. ☐ Check engine ventilation idle metering orifice for restriction.
8. ☐ Change engine oil.
9. ☐ Replace engine oil filter.
10. ☐ Change engine coolant (L.L.C.)
11. ☐ Replace fuel filter.
12. ☐ Replace air filter.
13. ☐ Replace spark plugs.
14. ☐ Check automatic temperature control air cleaner for correct operation (1.6 only).
15. ☐ Lubricate throttle linkage.
16. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
17. ☐ Check exhaust for damage, leaks and security.
18. ☐ Check oil level in manual transaxle.
19. ☐ Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.
20. ☐ Inspect fuel system for leaks, damage, deterioration and security.
21. ☐ Inspect for leaks from engine, transmission and steering system.
22. ☐ Check condition of tyres including spare.
23. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
24. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
25. ☐ Check operation of all lights.
26. ☐ Check operation of inhibitor switch.
27. ☐ Check stroke and operation of clutch, foot brake and park brake.
28. ☐ Lubricate locks, hinges and hood latch.
29. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

45,000 km or 27 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

45,000 km or 27 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.1 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

PTO

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor%, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Change engine oil.
6. ☐ Replace engine oil filter.
7. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
8. ☐ Check exhaust for damage, leaks and security.
9. ☐ Check oil level in manual transaxle.
10. ☐ Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.
11. ☐ Inspect fuel system for leaks, damage, deterioration and security.
12. ☐ Inspect for leaks from engine, transmission and steering system.
13. ☐ Check condition of tyres including spare.
14. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
15. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
16. ☐ Check operation of all lights.
17. ☐ Check operation of inhibitor switch.
18. ☐ Check stroke and operation of clutch, foot brake and park brake.
19. ☐ Lubricate locks, hinges and hood latch.
20. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

55,000 km or 33 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.5 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

55,000 km or 33 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

PTO

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Change engine oil.
6. ☐ Change engine oil filter.
7. ☐ Check condition and tension of external drive belts.
8. ☐ Inspect ignition wiring, distributor cap and rotor.
9. ☐ Change brake fluid.
10. ☐ Check automatic temperature control air cleaner for correct operation (1.6 only).
11. ☐ Lubricate throttle linkage.
12. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
13. ☐ Check exhaust for damage, leaks and security.
14. ☐ Check oil levels in manual transaxle.
15. ☐ Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.
16. ☐ Inspect fuel system components for leaks, damage, deterioration and security.
17. ☐ Inspect for leaks from engine, transmission, and steering system.
18. ☐ Check condition of tyres including spare.
19. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
20. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
21. ☐ Check operation of all lights.
22. ☐ Check operation of inhibitor switch.
23. ☐ Check stroke and operation of clutch, foot brake and park brake.
24. ☐ Lubricate locks, hinges and hood latch.
25. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

65,000 km or 39 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.1 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

65,000 km or 39 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

PTO

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Change engine oil.
6. ☐ Replace engine oil filter.
7. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
8. ☐ Check exhaust for damage, leaks and security.
9. ☐ Check oil level in manual transaxle.
10. ☐ Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.
11. ☐ Inspect fuel system for leaks, damage, deterioration and security.
12. ☐ Inspect for leaks from engine, transmission and steering system.
13. ☐ Check condition of tyres including spare.
14. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
15. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
16. ☐ Check operation of all lights.
17. ☐ Check operation of inhibitor switch.
18. ☐ Check stroke and operation of clutch, foot brake and park brake.
19. ☐ Lubricate locks, hinges and hood latch.
20. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

75,000 km or 45 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 2.3 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

PTO

75,000 km or 45 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Check condition and tension of external drive belts.
6. ☐ Inspect ignition wiring, distributor cap and rotor.
7. ☐ Check engine ventilation idle metering orifice for restriction.
8. ☐ Change engine oil.
9. ☐ Replace engine oil filter.
10. ☐ Change engine coolant (L.L.C.)
11. ☐ Replace fuel filter.
12. ☐ Replace air filter.
13. ☐ Replace spark plugs.
14. ☐ Check automatic temperature control air cleaner for correct operation (1.6 only).
15. ☐ Lubricate throttle linkage.
16. ☐ Replace camshaft drive belt.
17. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
18. ☐ Check exhaust for damage, leaks and security.
19. ☐ Check oil level in manual transaxle.
20. ☐ Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.
21. ☐ Inspect fuel system for leaks, damage, deterioration and security.
22. ☐ Inspect for leaks from engine, transmission and steering system.
23. ☐ Check condition of tyres including spare.
24. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
25. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
26. ☐ Check operation of all lights.
27. ☐ Check operation of inhibitor switch.
28. ☐ Check stroke and operation of clutch, foot brake and park brake.
29. ☐ Lubricate locks, hinges and hood latch.
30. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

85,000 km or 51 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

85,000 km or 51 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.3 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

.....

.....

.....

.....

Signature ..... Date .....

PTO

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Change engine oil.
6. ☐ Change engine oil filter.
7. ☐ Change brake fluid.
8. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
9. ☐ Check exhaust for damage, leaks and security.
10. ☐ Check oil level in manual transaxle.
11. ☐ Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.
12. ☐ Inspect fuel system for leaks, damage, deterioration and security.
13. ☐ Inspect for leaks from engine, transmission and steering system.
14. ☐ Check condition of tyres including spare.
15. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
16. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
17. ☐ Check operation of all lights.
18. ☐ Check operation of inhibitor switch.
19. ☐ Check stroke and operation of clutch, foot brake and park brake.
20. ☐ Lubricate locks, hinges and hood latch.
21. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

95,000 km or 57 Month SERVICE VALIDATION

Servicing Dealer .....

Date of Service .....

Odometer .....

Signed .....

95,000 km or 57 Months Service Coupon

HOLDEN WISE
QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.3 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

.....

.....

.....

.....

Signature ..... Date .....

PTO

1. ☐ Inspect condition, attachment and routing of all hoses, pipes and ducting. Look for leaks, deterioration and wear.
2. ☐ Inspect engine compartment components for damage and deterioration. Look for leakage from fluid reservoirs and engine.
3. ☐ Check fluid levels, (i.e. brake master cylinder, battery, washer bottle, automatic transmission, power steering reservoir). Check coolant level and inhibitor %, use tester. Top up as required.
4. ☐ If fitted with air conditioning, check refrigerant charge quantity.
5. ☐ Change engine oil.
6. ☐ Change engine oil filter.
7. ☐ Check condition and tension of external drive belts.
8. ☐ Inspect ignition wiring, distributor cap and rotor.
9. ☐ Check automatic temperature control air cleaner for correct operation (1.6 only).
10. ☐ Lubricate throttle linkage.
11. ☐ Inspect suspension, steering system and drive train for damaged, loose, worn or missing parts. Check wheel bearings for smooth rotation and correct end play.
12. ☐ Check exhaust for damage, leaks and security.
13. ☐ Check oil levels in manual transaxle.
14. ☐ Check all brake pads for serviceability. Inspect brake system for leaks, deterioration and loose, damaged or missing components.
15. ☐ Inspect fuel system components for leaks, damage, deterioration and security.
16. ☐ Inspect for leaks from engine, transmission, and steering system.
17. ☐ Check condition of tyres including spare.
18. ☐ Check seat belt webbing condition, buckle and retractor mechanism operation and anchorages.
19. ☐ Check operation of instruments and controls (Inspect wiper blade condition).
20. ☐ Check operation of all lights.
21. ☐ Check operation of inhibitor switch.
22. ☐ Check stroke and operation of clutch, foot brake and park brake.
23. ☐ Lubricate locks, hinges and hood latch.
24. ☐ Road Test: Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional repairs requested:

Warranty And Customer Assistance

New Vehicle Warranty 5- 2
Common Warranty Questions
and Answers 5- 4
Customer Assistance Guide 5- 7
Holden Dealer List 5- 8
Change of Address/Ownership ... 5-15
Identification Plates 5-19

GENERAL MOTORS-HOLDEN'S AUTOMOTIVE LIMITED NEW VEHICLE WARRANTY

GENERAL MOTORS-HOLDEN'S AUTOMOTIVE LIMITED, HEREIN AFTER HOLDEN'S, HEREBY WARRANTS THAT IT WILL MAKE GOOD, WITHOUT CHARGE, ANY DEFECT WHICH APPEARS IN THE VEHICLE IDENTIFIED IN THE VEHICLE IDENTIFICATION CERTIFICATE FOUND ON THE INSIDE OF THE FRONT COVER.

Provided

1. the defect has been notified to an authorised Holden Dealer or Service Dealer:
   (a) before the vehicle has travelled a distance of 20,000 km, or:
   (b) within 12 months of the date of delivery of the vehicle to the first retail purchaser (or in the case of a Demonstrator vehicle within 12 months of the date when it was first placed into service by the Dealer) whichever comes first, and
2. the vehicle has been returned to an authorised Holden Dealer or Service Dealer

And

3. the Dealer has determined that the defect complained of *is* one of material or workmanship and *is not* caused by:
   (a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc. or by neglect.
   (b) operation of the vehicle after it is known to be defective
   (c) accident or deliberate act
   (d) atmospheric fallout or flood, hail, salt, etc.
   (e) failure to carry out proper maintenance service
   (f) use of incorrect types and grades of fuel, oil or lubricants
   (g) alteration or modification of the vehicle
   (h) the fitting of parts or accessories not marketed by Holden's
   (i) any work carried out on the vehicle by someone other than an authorised Holden Dealer or Service Dealer,

BY THE DEALER (or as otherwise decided by Holden's) MAKING GOOD THE DEFECT BY REPAIR OR, AT THE OPTION OF HOLDEN'S, BY REPLACEMENT.

Excluded from this Warranty are

- defects in tyres (these being warranted by their manufacturers), and services such as engine tuning, brake adjustment, replacement of air and oil filters, wiper rubbers, etc. which are required as part of normal vehicle maintenance.

This Warranty applies only to vehicles operated in Australia and is given to the person who is entitled to possession of the vehicle whether as owner, lessee or otherwise and is given in addition to all rights conferred by law on that person.

Owners of vehicles operated outside Australia should consult their local dealer regarding the warranty applicable to their vehicles.

SPECIAL NOTICES TO OWNERS

Availability of Service and Parts After Warranty

Holden's has franchised dealers in many parts of Australia for the sale of service parts and the provision of service to owners of Holden's products. Every endeavour is made to ensure that such dealers carry adequate stocks of service parts and are equipped to provide satisfactory service, but Holden's does not make any promise that after the expiration of the warranty such parts or service facilities will be available, or available at any specific location or at any particular time.

Unauthorised Statements in Relation to Holden's Products

No Holden dealer or other person is authorised or permitted to give or make any statement assertion or undertaking in relation to the quality, performance, characteristics, descriptions or fitness for any purpose of any Holden's product or in connection with the supply of any Holden's product, which is at variance with any written statement assertion or undertaking on any of these subjects given or made by Holden's in its published sales literature, and the Company does not accept any liability for any such unauthorised action.

Warranty on Holden's Replacement Parts

Holden's warrants in respect of Holden's parts and accessories required as replacement parts, that it will make good by repair or at its option by replacement any defect occurring in any such Holden's parts and accessories within 12 months from the date of acquisition or in the case of a Holden's part or accessory which has been installed in a vehicle by a Holden Dealer or Service Dealer before such vehicle has travelled a distance of 20,000 kms from the date of installation, whichever first occurs.

WARRANTY QUESTIONS

This section is designed to assist you in understanding the terms of the Holden's Warranty provided with your new car.

The following are some of the most frequently asked questions for which detailed answers have been provided.

1. **Q. How do I go about obtaining Holden's Warranty Service?**

   A. It is the responsibility of the Selling Dealer to provide Holden's Warranty Service, therefore you should take your car to that Dealer whenever Holden's Warranty Service is required. However, if this is not possible, you may go to any other Authorised Holden Dealer. The details recorded inside the front cover of this book are required by the Dealer whenever you request Holden's Warranty Service.

   Note that the 1500 kilometre Warranty Service may be carried out by any Holden Dealer, provided you have a letter of introduction from the Selling Dealer. This letter must be arranged prior to obtaining the 1500 kilometre service.

2. **Q. What should I do if, in an emergency, Holden's Warranty Service is required and an Authorised Holden Dealer is not available to provide such service at that time?**

   A. If in an emergency, a repair, replacement or adjustment (covered by the Holden's New Vehicle Warranty) is required to enable your car to be operated safely and it is not practical for you to have that service performed by an Authorised Holden Dealer, the service (to the extent that it is necessary to enable your car to be operated safely) may be performed by any other qualified service technician or repairer. A claim for the reasonable cost may be made through the Authorised Holden Dealer who would normally provide you with Holden's Warranty Service. You must also take your car to the Authorised Holden Dealer for inspection of the service and/or the completion of any required Holden's Warranty Service as soon as possible.

3. **Q. What should I do if my car becomes unsafe or inoperative as a result of a defect which is covered by the Holden's New Vehicle Warranty?**

   A. You should contact the nearest Authorised Holden Dealer as soon as possible and arrange for that Dealer to carry out the required Holden's Warranty Service.

4. **Q. Will I have to pay for any costs or expenses in connection with the provision of Holden's Warranty Service?**

   A. All parts and labour used in carrying out Holden's Warranty Service at the premises of the Servicing Dealer are free of charge. Whenever Holden's Warranty Service is to be carried out by the Servicing Dealer it is your responsibility to deliver your car to the Servicing Dealer's premises.

   If, as a result of a defect which is covered by the Holden's New Vehicle Warranty, your car cannot be driven safely and you arrange for the nearest Authorised Holden Dealer to carry out the required Holden's Warranty Service, Holden's will accept reasonable towing costs to move your car to the nearest Holden Dealer's premises. Before employing a towing company, contact the nearest Holden Dealer and/or the Holden's Zone Office to obtain guidance.

5. Q. Are damage or injury, loss of time, inconvenience, commercial or other direct or indirect loss covered by the Holden's New Vehicle Warranty?

A. No, these items are not covered. The Holden's New Vehicle Warranty only covers the repair, replacement or adjustment of those parts of your car which are found to be defective in materials or workmanship. No other types of claim for compensation of any kind, even if the same resulted from a consequence of a defect in materials or workmanship in your car will be recognized under the Holden's New Vehicle Warranty. The rights and remedies which are available to you under any relevant Statutory Enactment or otherwise, at law, in connection with any such claim for compensation, you must pursue outside the ambit of the Holden's New Vehicle Warranty.

6. Q. Will I have to pay for Maintenance costs during the Warranty Period?

A. Maintenance costs are not covered by the Holden's New Vehicle Warranty. However, the scheduled 1500 kilometre service specified in chapter 4 of this book is free of charge (except for any lubricants used), provided that your vehicle has been operated under normal operating conditions and provided also that no modifications (other than a modification made by or at the direction of Holden's) has been made to your car. The Maintenance Schedules in this book specify the minimum maintenance required for your car operating under normal conditions.

The Maintenance items, except where they are required as a result of defects in materials or workmanship, for which you will be required to pay include:-

- Engine tune-up — including replacing spark plugs,
- Replacement of all filters.
- Cleaning or flushing of fuel, coolant, brake, engine, transaxle after the 1500 kilometre service.
- Adding to or replacing lubricants.
- Adding to or replacing air conditioning refrigerant.
- Any necessary adjustments to drive belts, transaxles, clutch, parking brake, etc.
- Wheel balancing — after 5,000 kilometres.
- Wheel alignment.
- De-dusting or de-glazing of brake linings or pads — after the 1500 kilometre service.
- Brake lining wear or damage.
- Brake disc pad or disc wear.
- Battery re-charging.
- Paint, bright metal finish and trim, due to normal deterioration.
- Body panel adjustment — after the 1500 kilometre service.
- Door, engine hood or rear compartment lid lock adjustments.
- Glass or channel adjustments — after the 1500 kilometre service.
- Body rattle, squeaks and general tightening of bolts, fastenings and fittings — after the 1500 kilometre service.
- Chipped glass or breakage.
- Torn or damaged floor mats or carpets.

7. Q. Are my tyres covered by the Holden's Vehicle Warranty?

A. No. The tyres fitted to your car are covered by a separate warranty provided by the tyre manufacturer. An Authorised Holden Dealer will assist you by discussing any queries which you might have with respect to the tyre manufacturer's warranty with the tyre manufacturers' representative.

8. Q. Are Holden's Part and Accessories covered by warranties?

A. If you purchase a Holden's part or accessory from an Authorised Holden Dealer it will be warranted by that Dealer under the Holden's Parts and Accessories Warranty against defects in materials or workmanship for a period of 12 months from the date at which you purchased it. In the case of a Holden's part or accessory which has been installed in a car by a Holden Dealer or a Service Dealer it will be warranted for a period of 12 months or a distance of 20,000 kms from the date of installation, whichever occurs first.

Maintenance items such as filter, spark plugs, wiper blades and brake pads/linings will require replacement as part of normal maintenance. Such replacements are not the subject of this warranty.

CUSTOMER ASSISTANCE

We want you to be happy with your new vehicle together with the people you deal with while you have the vehicle.

Normally, any problems which may arise with the sales transaction, operation or servicing of your vehicle will be handled by your Dealer's Sales and Service department.

We realise however, that, with the best intentions, misunderstandings do occur sometimes.

Accordingly, we suggest you discuss any concern with one of the Dealer's management people. If you feel you haven't received satisfaction from the Sales Manager or Service Manager — go to the General Manager or to the Dealer himself.

By now you should have satisfaction. If not, you have the facility of the Holden's Customer Assistance Service office at your disposal. The Holden's Customer Assistance representatives can be telephoned from anywhere within Australia outside the Melbourne Metropolitan area (for only the cost of a local call) on 008 03 3349. The Melbourne area number is 646 5466.

However, we recommend your initial discussions be with your servicing Dealer; as your problem will finally be resolved using the Dealership equipment and trained personnel.

If your concern relates to parts/accessories and you have made contact with the Dealer or Distributor without satisfaction, you may contact Holden's Service Parts Operations on (03) 797 7341.

Naturally, telephoning is both the quickest and the best way of contact. However, if you prefer to write the address is:

The Manager
Holden's Customer Assistance Services
GPO Box 548D
Melbourne, 3001

Your letter should clearly outline your concern or query, and include the following:

- — Your name and address
- — Telephone numbers, both Private and Business
- — Selling dealership name and address
- — Servicing dealership name and address
- — Vehicle model
- — Vehicle identification number (VIN)
- — Date of purchase
- — Current odometer reading

Most of this information will be found on the vehicle identification certificate, located inside the front cover of this book.

Before you write however, remember that the telephone is the quicker and more efficient means of communication.

HOLDEN DEALERS

N.S.W. Metropolitan

(Note: Dealership names and locations listed are effective at the time of printing. These many change from time to time without notice.)

ARNCLIFFE
Suttons Motors (Arncliffe) Pty. Ltd.,
93 Princes Highway

ASHFIELD
Muirs Motors (Ashfield) Pty. Ltd.,
252 Parramatta Road

BALGOWLAH
Boyded Balgowlah
164 Condamine Street

BAULKHAM HILLS
Tony Packard Holden
Cnr. Victoria Avenue & Windsor Road

BLACKTOWN
West City Holden,
120-128 Sunnyholt Road

CAMPBELLTOWN
Paul Wakeling Holden
Cnr. Blaxland & Campbelltown Rds.

CHULLORA
Suttons Motors (Chullora) Pty. Ltd.,
Cnr. Hume Highway & Waterloo Road

CROW'S NEST
J. N. Caldwell (Holdings) Pty. Ltd.,
1 Alexander Street

DEE WHY
Barry Smith Holden
Cnr. May and Mooramba Roads

GORDON
Sundell Holden
Cnr. Pacific Hwy. & McIntyre St.

HOMEBUSH
Suttons Motors (Homebush)
112 Parramatta Road

HOMEBUSH
Gilbert & Roach Pty. Ltd.,
167-173 Parramatta Road

KINGSFORD
John Pelligrini Holden
263-271 Anzac Parade

LAKEMBA
Nash Holden
1018 Canterbury Road

LIVERPOOL
A. C. McGrath & Co. Pty. Ltd.,
Cnr. Castlereagh St. & Hume Highway

MIRANDA
Greg Ball Holden
1-3 Kiora Road

NEWPORT
Mobil-Newport
Cnr. Barrenjoey Road & Seaview Avenue

PADSTOW
Purnell Bros. Holden
19 Davies Road

PARRAMATTA
Boyded Parramatta
65 Church Street

PENNANT HILLS
Les Vagg Holden
351-355 Pennant Hills Road

PENRITH
Lance Motors (Penrith) Pty. Ltd.,
39-47 Henry Street

ROCKDALE
Boyded Rockdale
571 Princes Highway

RYDE
Hunter Holden,
603-605 Victoria Road

ST. MARY'S
Lance Motors Pty. Ltd.,
Cnr. Glossop & Harris Streets

WAITARA
Sutton Motors
90 Pacific Highway

WARRAWONG
Dwyers Warrawong
King Street

WINDSOR
Erichsen Motors
122 George Street

HOLDEN DEALERS

N.S.W. Country

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ADELONG
- ALBURY
- ARDLETHAN
- ARMIDALE
- BALLINA
- BARADINE
- BARHAM
- BATHURST
- BEGA
- BELMONT
- BELLINGEN
- BLAYNEY
- BOMBALA
- BOURKE
- BOWRAL
- BREWARRINA
- BROKEN HILL
- CANOWINDRA
- CARDIFF
- CASINO
- CESSNOCK
- COBAR
- COFF'S HARBOUR
- COLLARENEBRI
- COOLAMON
- COOMA
- COONABARABRAN
- COONAMBLE
- COOTAMUNDRA
- COROWA
- COWRA
- CROOKWELL
- DENILIQUIN
- DORRIGO
- DUBBO
- EDEN
- FINLEY
- FORBES
- GILGANDRA
- GLEN INNES
- GLOUCESTER
- GOSFORD
- GOULBURN
- GRAFTON SOUTH
- GRENFELL
- GRIFFITH
- GULARGAMBONE
- GUNDAGAI
- GUNNEDAH
- GUNNING
- GUYRA
- HARDEN
- HAY
- HOLBROOK
- INVERELL
- JERILDERIE
- JUNEE
- KANDOS
- KATOOMBA
- KEMPSEY
- KIAMA
- KURRI KURRI
- KYOGLE
- LEETON
- LISMORE
- LITHGOW
- MACKSVILLE
- MACLEAN
- MAITLAND
- MOREE
- MORUYA
- MULLUMBIMBY
- MUNGINGI
- MURWILLUMBAH
- MUSWELLBROOK
- NARRABRI
- NARROMINE
- NEWCASTLE
- NOWRA
- NYNGAN
- ORANGE
- PARKES
- PEAK HILL
- PORT MACQUARIE
- QUIRINDI
- SCONE
- SINGLETON
- SPRINGWOOD
- TAMWORTH
- TAREE
- TEMORA
- TENTERFIELD
- TORONTO
- TUMBARUMBA
- TUMUT
- TWEED HEADS
- ULLADULLA
- WAGGA
- WALCHA
- WALGETT
- WALLA WALLA
- WARIALDA
- WARILLA
- WARREN
- WELLINGTON
- WEST WYALONG
- WOLLONGONG
- WOODENBONG
- WYONG
- YASS
- YOUNG

Australian Capital Territory

CANBERRA CITY
Beazley & Bruce Pty. Ltd.,
44 Mort Street

PHILLIP
Commonwealth Motors Pty. Ltd.,
158 Melrose Drive

BELCONNEN
Gerald Slaven Holden
Josephson Street

Vic. Metropolitan

BERWICK
Barry Bourke Holden
755 Princes Highway
BRAYBROOK
Kevin Dennis Holden
272 Ballarat Road
BUNDOORA
Watson Holden
413 Grimshaw Street
BURWOOD
Penfold Holden
63 Burwood Road
CAULFIELD
Booran Holden
1049 Glenhuntly Road
CHELSEA
Harrison Holden
370 Nepean Highway
CHELTENHAM
Balmoral Holden
1212 Nepean Highway
DANDENONG
Graeme Blanchard Holden Pty. Ltd.,
Princes Highway

ELSTERNWICK
Reg Hunt Holden
77 Nepean Highway
ESSENDON
Preston Motors (Essendon) Pty. Ltd.,
205-211 Keilor Highway
FAWKNER
Mantello Holden
1263 Sydney Road
FERNTREE GULLY
Neilson Holden F.T.G.
980 Burwood Highway
FOOTSCRAY
Alan Mance Holden
435 Barkly Street
FRANKSTON
Noel Gould Holden
140 Dandenong Road
GEELONG
R. & B. Smith Holden
510 Moorabool Street
GEELONG
Winter & Taylor (Sales) Pty. Ltd.,
23 Cavendish Street

GLEN WAVERLEY
Geoff Brady Holden
565-577 Springvale Road
HASTINGS
Westernport Holden
843 Frankston/
Flinders Road
LILYDALE
Noel Dight Holden
Main Street
MORNINGTON
Peninsula Holden
976 Nepean Highway
OAKLEIGH
Garry & Warren Smith Pty. Ltd.,
1575 Dandenong Road
RINGWOOD
Paterson Cheney Holden
45-57 Maroondah Highway
SOUTH MELBOURNE
Patterson Cheney Holden
132 Sturt Street
WERRIBEE
Ballan Holden
Princes Highway
WEST MELBOURNE
Reg Hunt Motors
577 King Street

HOLDEN DEALERS

Vic. Country

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ARARAT
- BAIRNSDALE
- BALLARAT
- BENALLA
- BENDIGO
- BIRCHIP
- BOORT
- CAMPERDOWN
- CASTERTON
- CASTLEMAINE
- CHARLTON
- COBRAM
- COHUNA
- COLAC
- COLERAINE
- CORRYONG
- DAYLESFORD
- DERRINALLUM
- DIMBOOLA
- DONALD
- ECHUCA
- EUROA
- FOSTER
- HAMILTON
- HOPETOUN
- HORSHAM
- KANIVA
- KERANG
- KOOWEERUP
- KORUMBURRA
- KYABRAM
- KYNETON
- LEONGATHA
- MAFFRA
- MANSFIELD
- MARYBOROUGH
- MILDURA
- MIRBOO NORTH
- MOE
- MORTLAKE
- MURRAYVILLE
- NATHALIA
- NHILL
- NULLAWIL
- ORBOST
- PORTLAND
- QUAMBATOOK
- ROCHESTER
- RUTHERGLEN
- SALE
- SEA LAKE
- SEYMOUR
- SHEPPARTON
- STAWELL
- ST. ARNAUD
- SWAN HILL
- TALLANGATTA
- TIMBOON
- TRARALGON
- UNDERBOOL
- WANGARATTA
- WARBURTON
- WARRACKNABEAL
- WARRAGUL
- WARRNAMBOOL
- WODONGA
- WONTHAGGI
- YARRAM
- YARRAWONGA

TASMANIA

HOBART
Motors Pty. Ltd.,
179 Macquarie Street
BURNIE
Motors Pty. Ltd.,
84-89 Marine Terrace
DEVONPORT
Motors Devonport
628 Victoria Parade

KING ISLAND
Island Motors Pty. Ltd.,
Netherby Road, Currie
LAUNCESTON
Motors Pty. Ltd.,
93 Elizabeth Street

SMITHTON
Motors Pty. Ltd.,
16 Nelson Road
ULVERSTONE
Motors Pty. Ltd.,
99 Reibey Street

HOLDEN DEALERS

QLD Metropolitan

ALBION
Bill Harrison Car Sales
Frodsham Street & Crosby Road
ASPLEY
Zupps (Aspley) Pty. Ltd.,
1442 Gympie Road
BEENLEIGH
Crest Holden
81-83 Logan River Road
CLEVELAND
Brian Tebble Motors
6 Wellington Street
INDOOROOPILLY
Centenary Motors
440 Moggill Road

IPSWICH
Zupps Holden
246 Brisbane Road, Booval
MOOROOKA
John Sivyer Holden
1060 Ipswich Road
MT. GRAVATT
Zupps Motors
1310 Logan Road
NEWSTEAD
Eagers Retail
95 Breakfast Creek Road
NUNDAH
Eagers (Northside)
1319 Sandgate Road

PETRIE
North Pine Motors Pty. Ltd.,
Gympie Road
REDCLIFFE
Village Holden
425 Elizabeth Street
SPRINGWOOD
Motorama Holden
Pacific Highway & Brennan Street
WINDSOR
Leach Holden
143 Newmarket Road
WOOLLOONGABBA
Armstrong Holden
73 Ipswich Rd
WYNNUM
Doug Barton Holden
200 Tingal Road

QLD Country

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ATHERTON
- AUGATHELLA
- AYR
- BEAUDESERT
- BEERWAH
- BILOELA
- BLACKWATER
- BOWEN
- BUNDABERG
- CABOOLTURE
- CAIRNS
- CALOUNDRA
- CAPELLA
- CHARLEVILLE
- CHARTERS TOWERS
- CHINCHILLA
- CLONCURRY
- CROWS NEST
- CUNNAMULLA
- DALBY
- EMERALD
- GATTON
- GAYNDAY
- GLADSTONE
- GOONDIWINDI
- GYMPIE
- INGHAM
- INNISFAIL
- JULIA CREEK
- KILCOY
- KINGAROY
- LAIDLEY
- LONGREACH
- MACKAY
- MAREEBA
- MITCHELL
- MONTO
- MORANBAH
- MOURA
- MT. ISA
- MURGON
- NANANGO
- NOOSA HEADS
- PROSERPINE
- QUILPIE
- ROCKHAMPTON
- ROMA
- SOUTHPORT
- SPRINGSURE
- STANTHORPE
- ST. GEORGE
- SURAT
- TARA
- THEODORE
- TOOWOOMBA
- TOWNSVILLE
- TULLY
- WARWICK
- WINTON
- YULEBA

W.A. Metropolitan

CANNINGTON
Brian Gardner Holden
1308 Albany Highway
FREMANTLE
Shacks Holden
64 Queen Victoria Street
GOSNELLS
Lance Gibbons Holden
2325 Albany Highway

MELVILLE
Melville Motors Pty. Ltd.,
532-536 Canning Highway
MIDLAND
John Goldie Holden
161 Great Eastern Highway
MORLEY
Metro Motors Pty. Ltd.,
212 Walter Road
NAVAL BASE
Shacks Cockburn
15 Rockingham Road

OSBORNE PARK
North City Holden
Cnr. Scarborough Beach Road
& Harborne Street
PERTH
City Motors
505 Newcastle Street
VICTORIA PARK
Young's Holden
529 Albany Highway
WANNEROO
Phoenix Holden
316 Berriman Drive

W.A. Country

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ALBANY
- AUGUSTA
- BEVERLEY
- BOYUP BROOK
- BRIDGETOWN
- BROOKTON
- BROOME
- BRUCE ROCK
- BUNBURY
- BUSSELTON
- CARNAMAH
- CARNARVON
- COLLIE
- CRANBROOK
- DALWALLINU
- DERBY
- ESPERANCE
- GERALDTON
- GNOWANGERUP
- KALGOORLIE
- KATANNING
- KELLENBERRIN
- KOJONUP
- KUNUNURRA
- MANJIMUP
- MERREDIN
- MOORA
- MORAWA
- MT. BARKER
- NAREMBEEN
- NARROGIN
- NORTHAM
- PORT HEDLAND
- WAGIN
- WILLIAMS
- WYALKATCHEM

HOLDEN DEALERS

S.A. Metropolitan

ADELAIDE
City Holden
203-221 Grenfell Street
ELIZABETH
Peter Page Holden
Elizabeth Way
GLENELG
John H. Ellers
282 Brighton Road

MALVERN
Claridge Holden
361-367 Unley Road
PORT ADELAIDE
Smith Motor Co. Pty. Ltd.,
171 Commercial Road
REYNELLA
Southgate Holden
49-59 Main South Road

THEBARTON
United Holden
1 Port Road
VALLEY VIEW
Plaza Holden
817-839 North East Road

S.A. Country

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- BALAKLAVA
- BERRI
- CEDUNA
- CLEVE
- CRYSTAL BROOK
- CUMMINS
- GAWLER
- JAMESTOWN
- KADINA
- KEITH
- KINGSCOTE
- KINGSTON
- LAMEROO
- LOXTON
- MAITLAND
- MALLALA
- MENINGIE
- MILLICENT
- MT. BARKER
- MT. GAMBIER
- MURRAY BRIDGE
- NARACOORTE
- PORT LINCOLN
- PORT PIRIE
- RENMARK
- STRATHALBYN
- TANUNDA
- TUMBY BAY
- VICTOR HARBOUR
- WAIKERIE
- WHYALLA
- YANKALILLA
- YORKETOWN

N.T.

ALICE SPRINGS
Kittle Bros (Alice Springs) Pty. Ltd.,
Cnr. Wills Terrace & Railway Terrace

DARWIN
Suttons Motors (Darwin) Pty. Ltd.,
21-25 Stuart Highway

KATHERINE
Master Motors
1130 Victoria Highway

To ensure continued interest in your vehicle, Holden's requests that owners who change their name or address and subsequent owners who purchase the vehicle fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

Notice of Name/Address Ownership Change

PLEASE TICK ☑ APPROPRIATE SQUARE:

☐ NAME/ADDRESS CHANGE

☐ NEW OWNER

Owner's Name Mr. Mrs. Miss .....

Address .....

Town .....

State ..... Post Code .....

Registration No. .....

Vehicle Identification Number (V.I.N.) .....

(Refer chapter for location of V.I.N.)

Notice of Name/Address Ownership Change

PLEASE TICK ☑ APPROPRIATE SQUARE:

☐ NAME/ADDRESS CHANGE

☐ NEW OWNER

Owner's Name Mr. Mrs. Miss .....

Address .....

Town .....

State ..... Post Code .....

Registration No. .....

Vehicle Identification Number (V.I.N.) .....

(Refer this chapter for location of V.I.N.)

Place in an envelope and mail to:

The Manager — Warranty Administration,
Service Department,
General Motors-Holden's Automotive Ltd.,
Box 548D, G.P.O.,
Melbourne,
Victoria, 3001

Place in an envelope and mail to:

The Manager — Warranty Administration,
Service Department,
General Motors-Holden's Automotive Ltd.,
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Melbourne,
Victoria, 3001

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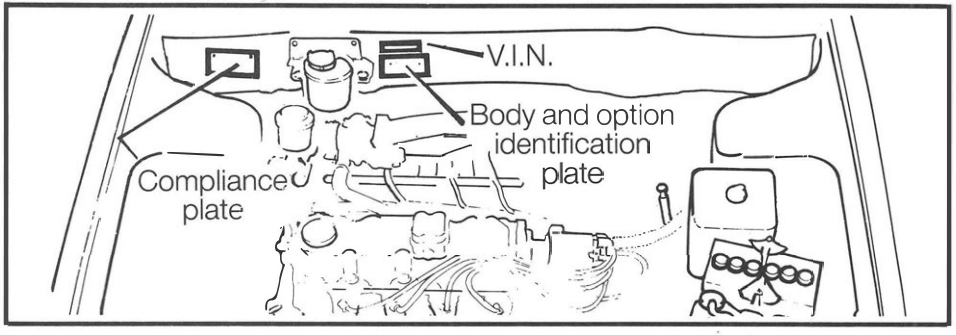

BODY AND OPTION IDENTIFICATION PLATE

This plate is located in the centre of the firewall and shows the following information.

Model Code — e.g. LD8LN68. The first two letters indicate model series (LD); '8' designates Holden's manufacture: 'L' designates Astra; the next letter indicates luxury level (N = SL, P = SLX , Q = SLE); the last two numbers indicate body style (68 = hatchback, 69 = sedan).

Vehicle Identification Number (V.I.N.) — This is also stamped into the firewall, above the Body and Option Identification Plate.

Engine No. — This is also stamped into the cylinder block at the front of the engine.

Paint/Trim Code — This indicates the colour and finish of the paintwork and interior trim of your vehicle.

Build Date — This is the calendar month and the year in which the body, shell and power train sub-assemblies are conjoined and the vehicle is driven or moved from the production line.

COMPLIANCE PLATE

The compliance plate is located in the engine compartment, on the driver's side of the firewall. This plate shows the manufacturer's name, vehicle model (V.I.N.), month and year of production, approved seating capacity and signifies AMVCB approval for Australian Design Rules (A.D.R.'s).

Technical Information And Specifications

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Transaxle specifications 6-3
Wheels and tyres 6-3
Vehicle dimensions 6-4
Kerb weights 6-4
Electrical system specification 6-5
Bulb application chart 6-5
Recommended lubricants 6-6

ENGINE SPECIFICATIONS

Model	**1.6**	**1.8**
Type	4-cyl. OHC	4-cyl. OHC
Displacement	1598 cc	1796 cc
Bore	80.0 mm	84.8 mm
Stroke	79.5 mm	79.5 mm
Compression Ratio	8.6:1	8.8:1
Firing Order	1–3–4–2	1–3–4–2
Fuel System	Throttle Body Injection	Multi Point Injection
Catalytic Converter	3-Way Type	3-Way Type

Note: Engine tune up data, including idle speed, ignition timing and spark plug gap are specified on the Emission Label, affixed on the underside of the bonnet, of your car.

TRANSAXLE SPECIFICATIONS

Transaxle type	5-Speed Manual Transaxle		3-Speed Automatic Transaxle	
Engine Specification	1.6 litre	1.8 litre	1.6 litre	1.8 litre
Transaxle model designation	RS5F31A		RL3FO1A	
Gear ratios — 1st	3.333	3.063	2.826	
2nd	1.955	1.826	1.543	
3rd	1.286	1.286	1.000	
4th	0.975	0.975	—	
5th	0.810	0.810	—	
Reverse	3.417	3.417	2.364	
Final drive ratio	4.167:1		3.600:1	3.476:1

WHEELS AND TYRES

Model	1.6 litre	1.8 litre
Road Wheel	5.0 JJ × 13 (Steel)	5.0 JJ × 13 (Steel)
Tyre	P165/75 SR 13	P185/65 HR 13 P175/70 HR 13
Tyre inflation pressure (cold)		
lightly laden — front	200 kpa (29 psi)	200 kpa (29 psi)
— rear	180 kpa (26 psi)	180 kpa (26 psi)
heavily laden or high speed — front	230 kpa (33 psi)	230 kpa (33 psi)
— rear	210 kpa (30 psi)	210 kpa (30 psi)
Wheel nut tightening torque	78 to 98 Nm (58 to 72 ft lb)	

VEHICLE DIMENSIONS

Body Style	Hatchback	Sedan
Overall length	4035 mm	4255 mm
Overall height	1380 mm	1380 mm
Overall width	1655 mm	1655 mm
Front track	1435 mm	1435 mm
Rear track	1430 mm	1430 mm
Wheelbase	2430 mm	2430 mm
Minimum ground clearance	110 mm	110 mm
Turning circle (kerb to kerb) (manual steering)	10.1 m	10.1 m
(power steering)	10.8 m	10.8 m

KERB WEIGHTS (Nominal)

Model	Hatchback		Sedan	
	Manual	Auto	Manual	Auto
SL	1020	—	—	—
SLX with 1.6 litre engine	1030	1050	1030	1050
SLX with 1.8 litre engine	1040	1060	1040	1060
SLE	1040	1060	1050	1070

Note: Add 25 kg; air conditioning is fitted.
Add 8 kg if power steering is fitted.

ELECTRICAL SYSTEM SPECIFICATIONS

System type	12 volt, negative earth
Battery Capacity	45 Ampere Hour
Alternator rated output	70 amp

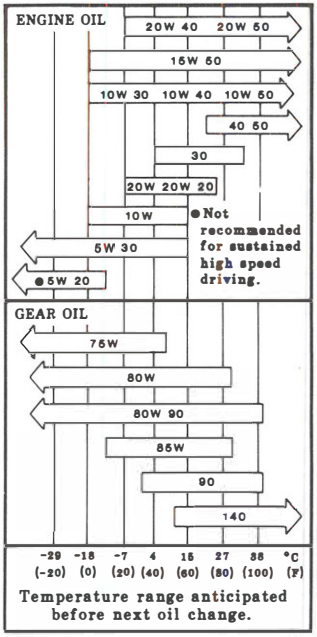
BULB APPLICATION CHART

Light	Wattage
Headlamp	60/55
Front turn signal	21
Front park lamp	5
Side repeater	5
Rear Brake/park lamp	21/5
Reverse lamp	21
Rear turn/signal	21
Licence plate lamp	10
Interior lamp	10
Luggage/Trunk lamp	5

RECOMMENDED LUBRICANTS

	Specification	Remarks
Fuel	Unleaded — Minimum octane 92 R.O.N.	
Engine	API SF	Refer to Recommended SAE Viscosity Chart at right
Manual transaxle	API GL-4	
Automatic transaxle	Dexron II®	
Manual steering rack	Castrol EPL 1 grease	or equivalent
Power steering rack	Dexron II®	
Cooling system	Holden's HN 1897 specification	Holden's Part No. M39288 (1 Litre) or M39338 (4 Litre)
Brake fluid	D.O.T 4	
Multi-purpose grease	NLGI No. 2	Lithium soap base

RECOMMENDED SAE VISCOSITY CHART



REFILL CAPACITIES (approximate)

Fuel tank	50 litres
Coolant	6.0 litres
Engine Oil — with filter — without filter	3.3 litres 3.0 litres
Manual transaxle	2.7 litres
Automatic transaxle	6.0 litres
Power steering	1.0 litre

The proper oil viscosity for your engine should be determined by the average outside temperature to assure good starting of a hot or cold engine.

Select the proper oil viscosity from the chart above.

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SERVICE STATION INFORMATION

FUEL FILLER CAP

It is located at left rear side of the vehicle. See page 1-15.

FUEL RECOMMENDATION

Use only Unleaded Petrol with a minimum octane rating of 92 R.O.N.

ENGINE COOLANT

Check engine coolant level. It should be between the "MIN" and "MAX" marks. Refer page 4-4 for top up procedure and coolant formula.

WINDSHIELD AND REAR WINDOW WASHER

Check reservoir fluid level. Refer page 4-5.

BATTERY FLUID

Check battery fluid level. If fluid is low, add distilled water. Refer 4-6.

ENGINE OIL DIPSTICK AND FILLER CAP

The engine oil dipstick is located on the right side of the cylinder block. The best time to check it is before operating the engine or as the last step in a fuel stop. Maintain the oil level between the marks on the dipstick.

ENGINE OIL RECOMMENDATION

Use only recommended engine oil. See page 6-6 for oil specification and viscosity chart.

BRAKE FLUID

Check brake and clutch reservoir fluid level. Use only recommended fluid. See page 6-6 for brake fluid specification.

AUTO. TRANSMISSION FLUID

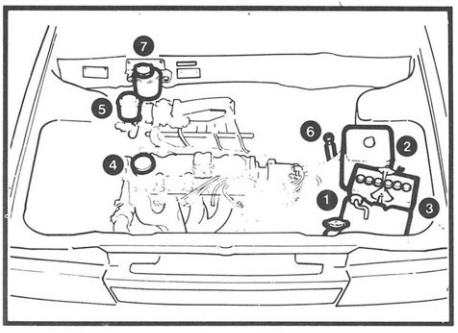
The automatic transmission fluid dipstick is located in a pipe in front of the firewall behind the engine. **Do not check when hot.** Refer page 4-6 for correct procedure.

POWER STEERING FLUID

Keep the power steering fluid in the reservoir up to the correct level shown on the dipstick. Use only recommended fluid as specified on page 6-6.

TYRE PRESSURE

Keep tyres inflated to pressure shown on page 6-3.



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② ..... Windshield Washer
③ ..... Battery Electrolyte
④ ..... Engine Oil.
⑤ ..... Brake Fluid.
⑥ ..... Automatic Transmission Fluid
⑦ ..... Power Steering Fluid

ACCIDENTS

All motorists are advised to learn what to do at the scene of an accident, particularly where persons are injured. Injured people can choke to death if their air passages are not cleared. They can bleed to death unless the bleeding is stopped. They may require mouth-to-mouth resuscitation, may have to be moved, even though badly injured. It is important that you understand how to avoid further damaging an injured neck or back or other broken limbs.

The following notes may help.

- **Part 1. Accident — being involved**
- **Part 2. Accident — being a witness**
- **Part 3. Medical assistance**

Part 1. Accident — being involved

If you are involved in an accident you are advised to do as follows:

Stop immediately.

Remember that time is vital. Remain calm and alert. Think quickly and clearly.

Give all possible assistance to all injured persons. (See Part 3 Medical Assistance).

Send for police and ambulance if anyone has been injured. Send information as accurately as possible. Give the exact location, the number of injured people and a brief report on the overall situation.

Perhaps take charge of the situation.

Warn all other traffic approaching the scene. Turn off ignition switches. Stop any smoking near spilt petrol. In darkness, try and light up the area to warn others.

Clear the road of accident debris.

Exchange your name, address, vehicle registration number and the vehicle owner's name and address with the other parties involved in the accident.

If damage to property only has occurred, report the facts to the owner of the damaged property or to his or her representative; to any police present at the scene or to the nearest Police Station.

Try and note all important facts because such details may be important if needed later.

Part 2. Accident — being a witness

If you witness a road accident or it becomes your task to stop and help at the scene of an accident, do this:

Keep in mind that an observant witness can prove most helpful. Some day you yourself might be very glad of help from a witness.

DO NOT stop at the scene of an accident *just to be a spectator.*

Where other people are already in attendance and giving assistance, **you should stop only if you can contribute assistance.**

Give what assistance you can to any injured persons. (See Part 3 Medical Assistance.)

Follow most of the steps suggested in Part 1. Perhaps you may have to take charge of the accident situation.

Part 3. Medical assistance

Keep calm and think clearly.

Your experience may not be much but do your best. Don't just stand by and let an injured person die.

• Look after the unconscious person first. Check for breathing. If no breathing, then check if air passages are clear, i.e. nose and mouth. Use your fingers to clear air passages if necessary. If the air way is clear then mouth-to-mouth resuscitation may be needed at once.

Unconscious people can choke.
Carefully turn to one side.
Tilt the head back slightly.
Wipe out the mouth with your finger to remove blood, vomit, broken teeth or dentures.

• You must be most careful in moving an injured person. Often it is best not to move at all but, in conditions of danger, this is not always possible. Serious and permanent damage can be done to an injured neck or back if not supported during movement. NEVER BEND A NECK OR BACK. KEEP THEM STRAIGHT. All injured limbs require support when an injured person has to be moved.

• Provided it is not dangerous to do so because of other injuries, an unconscious person will do best in the "coma position" illustrated here.

Lay the person on one side and — if it will not aggravate any injuries — then:
Bend the uppermost knee until the thigh is at right angle to the body.
Bend the uppermost arm and elbow so that the hand lies near the face.
Gently pull the underneath arm so that is rests straight on the ground free of any body weight.

• Try to stop bleeding by applying direct pressure, using your hands, or by pressing torn flesh together. Use any clean cloth available. Fold cloths to make pads. If necessary press one pad on top of another. Keep pressure around edge of a wound BUT NEVER USE A TOURNIQUET.

Shock may be treated by reassurance, relieving pain, controlling any bleeding and keeping the injured person warm *but not hot.* Best not to give any fluids and NEVER ALCOHOL.

• If the injured person is in danger and has to be moved, try and have three or four people help and concentrate on not bending the neck, spine and injured limbs. **Keeping the neck and spine straight is most important.**

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